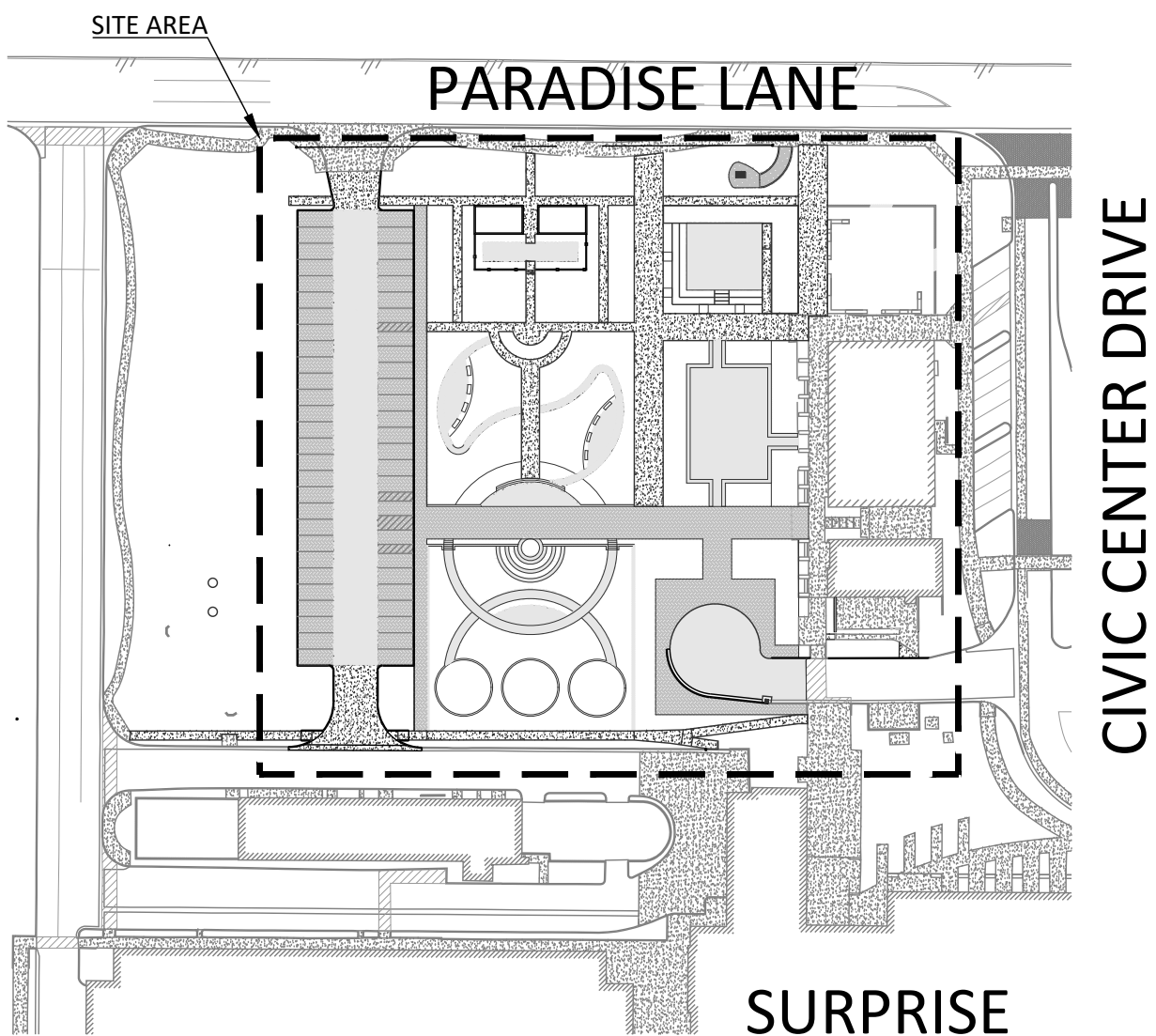
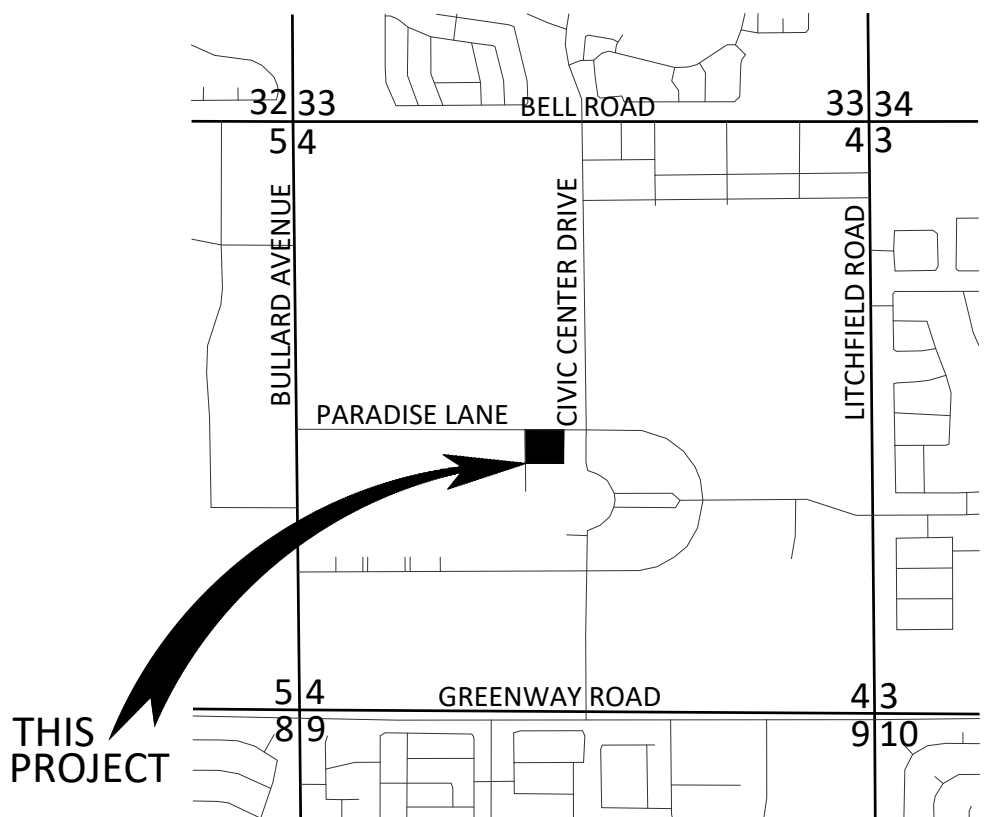


IMPROVEMENT PLAN for  
CITY OF SURPRISE WATER CONSERVATION GARDEN

16000 NORTH CIVIC CENTER PLAZA SURPRISE, ARIZONA  
A PORTION SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 3 NORTH, RANGE 1 WEST OF THE  
GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA



SCALE: 1"=100'



IN THE NE 1/4 OF THE SW 1/4 OF SECTION 4,  
T. 3 N., R. 1 W., G. & S. R. M.,  
CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA  
LOCATION MAP  
NORTH  
3" = 1 MILE

urban culture design  
734 west polk street  
phoenix, arizona 85007  
contact: tiffany halperin  
talk: 602-717-0702  
email: tiffany@urbanculturedesign.com

SURPRISE WATER  
CONSERVATION  
GARDEN

CITY HALL  
SURPRISE, ARIZONA

WATER RESOURCE MANAGEMENT  
contact: Amy Peterson  
email: Amy.Peterson@surpriseaz.gov  
talk: (623) 222-7033

PROJECT INFORMATION

SCOPE:  
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A WATER CONSERVATION  
GARDEN WITH ALL REQUIRED GRADING & DRAINAGE AND PARKING REQUIREMENTS.

ADDRESS:  
16000 NORTH CIVIC CENTER PLAZA  
SURPRISE, ARIZONA 85374

APN: 501-17-001Q

ZONING: PAD

AREA:  
TOTAL: 1,968,052 SF (45.18 AC)  
DISTURBED: 94,319 SF (2.17 AC)

SURVEY NOTES

- THE SURVEY FOR THIS PROJECT WAS PERFORMED BY:  
CITY OF SURPRISE PUBLIC WORKS - SURVEY DEPARTMENT  
16000 NORTH CIVIC CENTER PLAZA  
SURPRISE, ARIZONA 85374  
PH: 623-222-6154  
CONTACT: RON DRY, R.L.S.
- THE BASIS OF BEARINGS FOR THIS PROJECT IS THE MONUMENT LINE BETWEEN  
CITY OF SURPRISE 1/2" COPPER PIN SURVEY CONTROL POINT #3 AND 1/2"  
COPPER PIN CONTROL POINT #4, LOCATED ALONG THE NORTH SIDE OF THE  
PROJECT, USING A BEARING OF N 89°46'59" E.
- CITY OF SURPRISE BENCHMARK #20 CHISELED ANGLE POINT ON THE NORTH SIDE  
OF THE BASE OF A LUMINAIRE. THIS LUMINAIRE IS LOCATED APPROXIMATELY 9' SOUTH  
OF BELL ROAD AND APPROXIMATELY MIDWAY BETWEEN BULLARD AVENUE AND  
SUN VILLAGE PARKWAY. ELEVATION = 1218.70

BENCHMARK

CITY OF SURPRISE BENCHMARK #20 CHISELED ANGLE POINT ON THE NORTH SIDE OF  
THE BASE OF A LUMINAIRE. THIS LUMINAIRE IS LOCATED APPROXIMATELY 9' SOUTH  
OF BELL ROAD AND APPROXIMATELY MIDWAY BETWEEN BULLARD AVENUE AND  
SUN VILLAGE PARKWAY. ELEVATION = 1218.70

FLOODPLAIN INFORMATION

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD  
INSURANCE RATE MAP PANEL NUMBER 04013C1240I, DATED OCTOBER 16, 2013  
THE PARCEL IS LOCATED IN THE ZONE X (SHADED) AREA, WHICH IS DEFINED AS  
AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD  
WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS  
THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL  
CHANCE FLOOD.

LEGAL DESCRIPTION

PARCEL NO. 1:  
THAT PORTION OF SECTION 4, TOWNSHIP 3 NORTH, RANGE 1 WEST OF THE GILA  
AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS  
FOLLOWS:

COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 4;  
THENCE SOUTH 00°12'57" WEST, ALONG THE NORTH-SOUTH MID-SECTION LINE OF  
SAID SECTION 4, A DISTANCE OF 65.00 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE SOUTH 89°23'04" EAST, PARALLEL TO THE NORTH LINE OF THE NORTHEAST  
QUARTER OF SAID SECTION 4, A DISTANCE OF 60.00 FEET;  
THENCE SOUTH 45°24'56" WEST A DISTANCE OF 28.19 FEET;  
THENCE SOUTH 00°12'57" WEST A DISTANCE OF 37.04 FEET TO THE BEGINNING OF A  
TANGENT CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 30.00 FEET;  
THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF  
77°21'52" AN ARC LENGTH OF 40.51 FEET TO THE BEGINNING OF A TANGENT  
REVERSE CURVE CONCAVE TO THE WEST HAVING A RADIUS OF 290.00 FEET;  
THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF  
141°49'52" AN ARC LENGTH OF 717.87 FEET TO A POINT ON THE EAST LINE OF THE  
WEST 125.00 FEET OF THE NORTHEAST QUARTER OF SAID SECTION 4;  
THENCE SOUTH 00°12'57" WEST, PARALLEL TO SAID NORTH-SOUTH MID-SECTION  
LINE, A DISTANCE OF 2045.88 FEET TO A POINT ON THE EAST-WEST MID-SECTION  
LINE OF SECTION 4;  
THENCE SOUTH 88°34'01" EAST, ALONG SAID EAST-WEST MID-SECTION LINE, A  
DISTANCE OF 2458.71 FEET TO A POINT 55.00 FEET WEST OF THE EAST QUARTER  
CORNER OF SAID SECTION 4;  
THENCE SOUTH 00°13'59" WEST, PARALLEL TO THE EAST-WEST MID-SECTION LINE  
OF SAID SECTION 4, A DISTANCE OF 3205.92 FEET;  
THENCE NORTH 00°12'57" EAST, PARALLEL TO THE NORTH-SOUTH MID-SECTION LINE  
A DISTANCE OF 1320.30 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHWEST  
QUARTER OF SAID SECTION 4;  
THENCE SOUTH 88°34'01" EAST ALONG THE EAST-WEST MID-SECTION LINE A  
DISTANCE OF 497.55 FEET TO A POINT 125.00 FEET WEST OF THE NORTH-SOUTH  
MID-SECTION LINE OF SAID SECTION 4;  
THENCE NORTH 00°12'57" EAST, PARALLEL TO SAID NORTH-SOUTH MID-SECTION  
LINE OF SECTION 4, A DISTANCE OF 2040.57 FEET TO THE BEGINNING OF A  
NON-TANGENT CURVE CONCAVE TO THE EAST, THE CENTER OF WHICH BEARS  
NORTH 25°44'56" EAST A DISTANCE OF 290.00 FEET;  
THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF  
141°49'52" AN ARC LENGTH OF 717.87 FEET TO THE BEGINNING OF A TANGENT  
CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 30.00 FEET;  
THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF  
77°21'51" AN ARC LENGTH OF 40.51 FEET TO A POINT OF TANGENCY;  
THENCE NORTH 00°12'57" EAST A DISTANCE OF 37.61 FEET;  
THENCE NORTH 44°34'51" WEST A DISTANCE OF 28.39 FEET;  
THENCE SOUTH 89°22'39" EAST A DISTANCE OF 60.00 FEET TO THE TRUE POINT OF  
BEGINNING;

EXCEPT THEREFROM ALL URANIUM, THORIUM AND OTHER MATERIALS DETERMINED  
PURSUANT TO SECTION 5(B) (1) OF THE ATOMIC ENERGY ACT OF 1940 (60 STAT. 761)  
TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIAL,  
CONTAINED IN WHATEVER CONCENTRATION, IN DEPOSITS IN THE LANDS THEREIN,  
AS RESERVED IN INSTRUMENT RECORDED JUNE 27, 1949 IN DOCKET 406, PAGE 479.

RETENTION SUMMARY

THE REQUIRED VOLUME IS THE 100-YR, 2-HR VOLUME FLOWING DIRECTLY TO THE  
EXISTING BASIN TO THE WEST PLUS THE EXISTING VOLUME TO BE REMOVED  
WITH THE NEW DEVELOPMENT PLUS THE ADDITIONAL REQUIRED RETENTION  
VOLUME FOR THE FOR THE AREA TO BE DEVELOPED (PRE-VS-POST).

REQUIRED VOLUME:

100-YR, 2-HR REQUIRED RETENTION VOLUME (FOR EXISTING WEST BASIN TO  
REMAIN):  
VOLUME [CF] = C x (P [IN] / 12) x AREA [SF]

V = 0.83 x (2.13/12) x 119,149 = 17,554 CF

PRE VS POST ADDITIONAL REQUIRED RETENTION VOLUME (FOR AREA BEING  
REDEVELOPED):

EXISTING CONDITION 100-YR, 2-HR:  
V = 0.62 x (2.13/12) x 94,319 = 10,380 CF

PROPOSED CONDITION 100-YR, 2-HR:  
V = 0.75 x (2.13/12) x 94,319 = 12,557 CF

PRE VS POST ADDITIONAL REQUIRED RETENTION VOLUME:  
12,557 CF - 10,380 CF = 2,177 CF

TOTAL VOLUME REQUIRED: 17,554 CF (100-YR, 2-HR REQUIRED FLOWING DIRECTLY  
TO LARGE BASIN) + 27,277 CF EXISTING PROVIDED BASINS + 2,177 CF  
ADDITIONAL REQUIRED VOLUME TO ACCOMMODATE PROJECT AREA  
= 47,008 CF

PROVIDED VOLUME:  
42,933 CF OF RETENTION IS PROVIDED VIA 3 FEET OF PONDING IN THE EXISTING  
WESTERN SURFACE RETENTION BASIN, WHICH WILL BE RE-GRADED. 4,121 CF  
OF RETENTION IS PROVIDED VIA 82 FEET OF A NEW 8" DIAMETER  
UNDERGROUND CMP RETENTION TANK.

TOTAL PROVIDED VOLUME: 42,933 CF + 4,121 CF = 47,054 CF.

DRYWELL CALCULATIONS

TOTAL VOLUME = 47,008 CF

DRYWELL DISSIPATION RATE IS ANTICIPATED TO BE GREATER THAN 0.37 CFS  
COMBINED FROM 3 DRYWELLS (1 EXISTING + 2 NEW). IF PERCOLATION TESTS  
SHOW COMBINED DISSIPATION RATE < 0.37 CFS, A FOURTH DRYWELL SHALL BE  
INSTALLED.

TIME [SEC] = VOLUME [CF] / RATE [CFS]

t = 47,008 / 0.37 = 129,749 SEC = 36.0 HOURS

DRAINAGE STATEMENT

-SITE IS NOT IN A SPECIAL FLOOD HAZARD AREA  
-OFFSITE FLOWS AFFECT THIS SITE FROM PARADISE LANE AND SURROUNDING CITY  
HALL AREAS  
-RETENTION PROVIDED IS 100-YR, 2-HR VOLUME FLOWING DIRECTLY TO THE  
EXISTING BASIN TO BE RE-GRADED PLUS THE EXISTING VOLUME FROM RETENTION  
BASINS TO BE REMOVED BY THE NEW DEVELOPMENT PLUS THE ADDITIONAL  
REQUIRED (PRE-VS-POST) RETENTION VOLUME FOR THE FOR DEVELOPMENT AREA  
-EXTREME STORM OUTFALLS THE SITE AT THE NORTHEAST CORNER AT THE  
ELEVATION OF 1108.50

UTILITY COMPANY CONFLICT

THESE PLANS HAVE BEEN SUBMITTED TO THE FOLLOWING UTILITY COMPANIES AND  
THE WORK CONTAINED IN THESE PLANS HAS BEEN APPROVED BY THESE COMPANIES  
WITHIN THEIR AREA OF INTEREST.

ARIZONA PUBLIC SERVICE	conflictreview@aps.com COMPANY REPRESENTATIVE CONTACTED	DATE
CENTURYLINK	azreview@centurylink.com COMPANY REPRESENTATIVE CONTACTED	DATE
SOUTHWEST GAS CO.	SOUTHWEST GAS CONFLICT REVIEW- W.V. COMPANY REPRESENTATIVE CONTACTED	DATE
COX CABLE T.V.	phx.tmc@cox.com COMPANY REPRESENTATIVE CONTACTED	DATE

CITY OF SURPRISE ENGINEER APPROVAL

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY  
REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR  
ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL  
SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF  
ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF LAWS OR  
ORDINANCES.

CITY OF SURPRISE ENGINEER DATE

AS-BUILT CERTIFICATION CITY OF SURPRISE

I CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN HEREON WAS OBTAINED  
UNDER MY DIRECT SUPERVISION AND IS CORRECT AND COMPLETE TO THE BEST OF  
MY KNOWLEDGE AND BELIEF.

APPROVED ENGINEER OF RECORD DATE

REGISTRATION NUMBER

OWNER

CITY OF SURPRISE  
16000 NORTH CIVIC CENTER PLAZA  
SURPRISE, ARIZONA 85374  
PH: 623-222-7033  
ATTN: AMY PETERSON

CIVIL ENGINEER

CYPRESS CIVIL DEVELOPMENT  
4450 NORTH 12TH STREET, #228  
PHOENIX, ARIZONA 85014  
PH: 623-282-2498  
ATTN: JEFF HUNT

LANDSCAPE ARCHITECT

THE URBAN CULTURE DESIGN PROJECT  
734 WEST POLK STREET  
PHOENIX, ARIZONA 85007  
PH: 602-717-0702  
ATTN: TIFFANY HALPERIN

UTILITIES

WATER:	CITY OF SURPRISE
SEWER:	CITY OF SURPRISE
ELECTRIC:	APS
GAS:	SOUTHWEST GAS
TELEPHONE:	CENTURYLINK
CABLE:	COX COMMUNICATIONS

SHEET INDEX

- COVER SHEET
- NOTES
- NOTES
- GRADING AND DRAINAGE PLAN
- ONSITE UTILITY PLAN
- DETAILS
- DETAILS
- CROSS SECTIONS
- RETAINING WALL PROFILES



CYPRESS  
CIVIL  
4450 north 12th street, #228  
phoenix, arizona 85014  
p: 623.282.2498  
e: jphunt@cypresscivil.com

CYPRESS PROJECT NO: 19.135

cover sheet

<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	2ND CITY SUBMITTAL
<input checked="" type="radio"/>	1ST CITY SUBMITTAL
<input type="radio"/>	PRELIMINARY PLANS PLANTING AND IRRIG.
<input type="radio"/>	CONCEPT DRAWINGS
	MAR. 2ND, 2020
<input type="checkbox"/>	JPH
<input type="checkbox"/>	JPH
#	UCD PROJECT NO. 19015



1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT ARIZONA UNDERGROUND FACILITIES LAWS (ARIZONA REVISED STATUTES TITLE 40, CHAPTER 2, ARTICLE 6.3, SECTION 40-360.21-32). CALL ARIZONA 811 FOR FIELD LOCATION BY DIAL 811.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT 623-222-6150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIATION FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, LANDSCAPING IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT 623-222-6000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A.) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT ARIZONA UNDERGROUND FACILITIES LAWS (ARIZONA REVISED STATUTES TITLE 40, CHAPTER 2, ARTICLE 6.3, SECTION 40-360.21-32). CALL ARIZONA 811 FOR FIELD LOCATION BY DIAL 811.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT 623-222-6150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIATION FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, LANDSCAPING IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT 623-222-6000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A.) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED PERMITS AND INSPECTIONS FROM APPROPRIATE GOVERNMENTAL AGENCIES FOR ALL WORK IN THE PUBLIC RIGHT-OF-WAY.
2. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL UNCOVER ALL EXISTING LINES BEING TIED TO AND VERIFY THEIR LOCATION PRIOR TO TRENCHING. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND PIPELINES, TELEPHONE AND ELECTRICAL CONDUIT AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND SHALL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO THE SAME. CALL BLUE STAKE AT 602-263-1100 AND NOTIFY ALL INTERESTED UTILITIES.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD BEFORE THE SANITARY SEWER FITTINGS ARE COVERED. FITTINGS SHALL NOT BE COVERED UNTIL SURVEYS HAVE BEEN COMPLETED. THE ENGINEER SHALL MAKE FIELD AS-BUILT MEASUREMENTS OF THE SANITARY SEWER WORK UPON NOTIFICATION BY THE SEWER CONTRACTOR THAT THE PIPE WORK IS COMPLETE AND READY FOR AS-BUILT SURVEY.
5. AS-BUILT PLANS CERTIFIED FOR CORRECTNESS BY A PROFESSIONAL CIVIL ENGINEER OR LAND SURVEYOR IN THE STATE OF ARIZONA ARE REQUIRED PRIOR TO FINAL APPROVAL OF ALL WATER, SEWER, RECLAIMED WATER AND STORM WATER CONSTRUCTION.
6. THE FOLLOWING DETAIL IS SPECIFICALLY NOT APPROVED: MAG STANDARD DETAIL 425 (24-INCH ALUMINUM, MANHOLE FRAME AND COVER).
7. A TWO (2) INCH BY FOUR (4) INCH WOOD OR METAL POST PAINTED GREEN WITH BLACK LOT NUMBERS IS TO BE INSTALLED AT THE END OF ALL SEWER SERVICES.
8. FOR RESIDENTIAL CONSTRUCTION, SEWER SERVICES SHALL BE SIX (6) FEET BELOW FINISH GRADE AT THE PUBLIC UTILITY EASEMENT AND FOUR (4) FEET BELOW THE FINISH GRADE AT FOUR (4) FEET PAST THE PUBLIC UTILITY EASEMENT.
9. ANY MANHOLE IN A GUTTER LINE MUST BE WATERTIGHT PER MAG STANDARD DETAIL 424.
10. THE MANHOLE COVERS SHALL READ "SURPRISE SANITARY SEWER" PER DETAIL 7-01.
11. MANHOLES TEN (10) FEET OR DEEPER SHALL BE A MINIMUM OF FIVE (5) FEET IN DIAMETER.
12. ALL MANHOLE SECTIONS SHALL BE SEALED WITH BOTH MASTIC (RAMNECK OR APPROVED EQUAL) AND GROUT PLACED INSIDE EACH MANHOLE SECTION KEY. THE INSIDE JOINTS SHALL BE GROUT-FINISHED.
13. UPON THE COMPLETION OF THE SEWER, THE TOP EIGHT (8) FEET OF ALL MANHOLES ARE TO BE SPRAYED WITH INSECTICIDE BY A CERTIFIED COMPANY OR INDIVIDUAL FOR ROACH CONTROL. A VERIFICATION LETTER IS TO BE FURNISHED TO THE CITY OF SURPRISE.
14. MARKING TAPE AND MARKER BALLS SHALL BE INSTALLED AT ALL SEWER LINE FITTINGS AND EVERY 200 FEET IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 200 FEET PER DETAIL 7-08.
15. SHORT TERM DEFLECTION TESTING SHALL BE PERFORMED ON ALL SEGMENTS OF PLASTIC SEWER PIPE EIGHT (8) INCHES IN DIAMETER AND LARGER AFTER COMPLETION OF BACKFILL AND COMPACTION, BUT PRIOR TO INSTALLATION OF FINISH SURFACE MATERIAL. A SHORT-TERM DEFLECTION IN EXCESS OF FIVE (5) PERCENT SHALL BE CONSIDERED UNSERVICEABLE AND SHALL BE REPAIRED OR REPLACED AND RE-TESTED.
16. LOW-PRESSURE AIR TESTING IS REQUIRED FOR ONE HUNDRED (100) PERCENT OF THE LINE INSTALLATION PER MAG SPECIFICATION 615.11.
17. ONE HUNDRED (100) PERCENT OF BRANCH, MAIN, AND TRUNK SEWER LINES ARE TO BE INSPECTED BY VIDEO CAMERA. TWO COPIES OF COMPLETED DVD ALONG WITH OPERATOR NOTES ARE TO BE FURNISHED TO THE CITY OF SURPRISE UPON COMPLETION OF THE FIRST VIDEO. IF THERE ARE NEGATIVE RESULTS THEN THE AFFECTED SEWER LINES WILL BE REPAIRED AND RE-VIDEOED ACCORDINGLY.
18. ALL SEWER MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS, USING THE WATER TIGHTNESS OR AIR PRESSURE METHODS AS PUBLISHED IN TITLE 18 ENVIRONMENTAL QUALITY.
19. THE MINIMUM COVER FOR SEWER MAIN PIPES SHALL BE SIX (6) FEET FROM TOP OF PIPE TO FINISHED GRADE. SEWER PIPE BEDDING SHALL BE ONE HUNDRED (100) PERCENT ABC MATERIAL PER MAG SPECIFICATIONS, PLACED AND COMPACTED FROM FOUR (4) INCHES BELOW PIPE TO TWELVE (12) INCHES ABOVE PIPE. FOR SEWER LINE CONSTRUCTION THE PIPE BEDDING SHALL BE PLACED IN TWO LIFTS PER MAG SPECIFICATIONS.
20. PIPE BEDDING, BACKFILLING AND COMPACTION SHALL BE PER MAG STANDARD DETAIL 200-1.
21. SEWER LINES SHALL CONSIST OF POLYVINYL CHLORIDE (PVC) SOLID WALL PLASTIC SEWER PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3034, SDR-35 OR C900.

- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED PERMITS AND INSPECTIONS FROM APPROPRIATE GOVERNMENTAL AGENCIES FOR ALL WORK IN THE PUBLIC RIGHT-OF-WAY.
2. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL UNCOVER ALL EXISTING LINES BEING TIED TO AND VERIFY THEIR LOCATION PRIOR TO TRENCHING. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND PIPELINES, TELEPHONE AND ELECTRICAL CONDUIT AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND SHALL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO THE SAME. CALL BLUE STAKE AT 602-263-1100 AND NOTIFY ALL INTERESTED UTILITIES.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD BEFORE THE SANITARY SEWER FITTINGS ARE COVERED. FITTINGS SHALL NOT BE COVERED UNTIL SURVEYS HAVE BEEN COMPLETED. THE ENGINEER SHALL MAKE FIELD AS-BUILT MEASUREMENTS OF THE SANITARY SEWER WORK UPON NOTIFICATION BY THE SEWER CONTRACTOR THAT THE PIPE WORK IS COMPLETE AND READY FOR AS-BUILT SURVEY.
5. AS-BUILT PLANS CERTIFIED FOR CORRECTNESS BY A PROFESSIONAL CIVIL ENGINEER OR LAND SURVEYOR IN THE STATE OF ARIZONA ARE REQUIRED PRIOR TO FINAL APPROVAL OF ALL WATER, SEWER, RECLAIMED WATER AND STORM WATER CONSTRUCTION.
6. THE FOLLOWING DETAIL IS SPECIFICALLY NOT APPROVED: MAG STANDARD DETAIL 425 (24-INCH ALUMINUM, MANHOLE FRAME AND COVER).
7. A TWO (2) INCH BY FOUR (4) INCH WOOD OR METAL POST PAINTED GREEN WITH BLACK LOT NUMBERS IS TO BE INSTALLED AT THE END OF ALL SEWER SERVICES.
8. FOR RESIDENTIAL CONSTRUCTION, SEWER SERVICES SHALL BE SIX (6) FEET BELOW FINISH GRADE AT THE PUBLIC UTILITY EASEMENT AND FOUR (4) FEET BELOW THE FINISH GRADE AT FOUR (4) FEET PAST THE PUBLIC UTILITY EASEMENT.
9. ANY MANHOLE IN A GUTTER LINE MUST BE watertight PER MAG STANDARD DETAIL 424.
10. THE MANHOLE COVERS SHALL READ "SURPRISE SANITARY SEWER" PER DETAIL 7-01.
11. MANHOLES TEN (10) FEET OR DEEPER SHALL BE A MINIMUM OF FIVE (5) FEET IN DIAMETER.
12. ALL MANHOLE SECTIONS SHALL BE SEALED WITH BOTH MASTIC (RAMNECK OR APPROVED EQUAL) AND GROUT PLACED INSIDE EACH MANHOLE SECTION KEY. THE INSIDE JOINTS SHALL BE GROUT-FINISHED.
13. UPON THE COMPLETION OF THE SEWER, THE TOP EIGHT (8) FEET OF ALL MANHOLES ARE TO BE SPRAYED WITH INSECTICIDE BY A CERTIFIED COMPANY OR INDIVIDUAL FOR ROACH CONTROL. A VERIFICATION LETTER IS TO BE FURNISHED TO THE CITY OF SURPRISE.
14. MARKING TAPE AND MARKER BALLS SHALL BE INSTALLED AT ALL SEWER LINE FITTINGS AND EVERY 200 FEET IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 200 FEET PER DETAIL 7-08.
15. SHORT TERM DEFLECTION TESTING SHALL BE PERFORMED ON ALL SEGMENTS OF PLASTIC SEWER PIPE EIGHT (8) INCHES IN DIAMETER AND LARGER AFTER COMPLETION OF BACKFILL AND COMPACTION, BUT PRIOR TO INSTALLATION OF FINISH SURFACE MATERIAL. A SHORT-TERM DEFLECTION IN EXCESS OF FIVE (5) PERCENT SHALL BE CONSIDERED UNSERVICEABLE AND SHALL BE REPAIRED OR REPLACED AND RETESTED.
16. LOW-PRESSURE AIR TESTING IS REQUIRED FOR ONE HUNDRED (100) PERCENT OF THE LINE INSTALLATION PER MAG SPECIFICATION 615.11.
17. ONE HUNDRED (100) PERCENT OF BRANCH, MAIN, AND TRUNK SEWER LINES ARE TO BE INSPECTED BY VIDEO CAMERA. TWO COPIES OF COMPLETED DVD ALONG WITH OPERATOR NOTES ARE TO BE FURNISHED TO THE CITY OF SURPRISE UPON COMPLETION OF THE FIRST VIDEO. IF THERE ARE NEGATIVE RESULTS THEN THE AFFECTED SEWER LINES WILL BE REPAIRED AND RE-VIDEOED ACCORDINGLY.
18. ALL SEWER MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS, USING THE WATER TIGHTNESS OR AIR PRESSURE METHODS AS PUBLISHED IN TITLE 18 ENVIRONMENTAL QUALITY.
19. THE MINIMUM COVER FOR SEWER MAIN PIPES SHALL BE SIX (6) FEET FROM TOP OF PIPE TO FINISHED GRADE. SEWER PIPE BEDDING SHALL BE ONE HUNDRED (100) PERCENT ABC MATERIAL PER MAG SPECIFICATIONS, PLACED AND COMPACTED FROM FOUR (4) INCHES BELOW PIPE TO TWELVE (12) INCHES ABOVE PIPE. FOR SEWER LINE CONSTRUCTION THE PIPE BEDDING SHALL BE PLACED IN TWO LIFTS PER MAG SPECIFICATIONS.
20. PIPE BEDDING, BACKFILLING AND COMPACTION SHALL BE PER MAG STANDARD DETAIL 200-1.
21. SEWER LINES SHALL CONSIST OF POLYVINYL CHLORIDE (PVC) SOLID WALL PLASTIC SEWER PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3034, SDR-35 OR C900.

1. THE CONTRACTOR TO FOLLOW RECOMMENDATIONS LISTED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT. SHOULD ANY CONFLICTS ARISE BETWEEN THE SOILS INVESTIGATION REPORT AND THESE GRADING PLANS, THE CIVIL ENGINEER SHALL BE CONTACTED FOR CLARIFICATION.
2. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO UNFORESEEN FIELD CONDITIONS.
3. THE ENGINEER WILL PERFORM FIELD SURVEYS FOR PAD ELEVATION CERTIFICATIONS, UPON NOTIFICATION BY THE GRADING CONTRACTOR, THAT THE PADS ARE COMPLETE AND READY FOR CERTIFICATION. IT IS UNDERSTOOD THAT THE CERTIFICATION PROVIDES ONLY A REPRESENTATIVE ELEVATION OF THE AVERAGE GRADE OF EACH LOT, BUILDINGS, OR UNIT PAD, AND SHALL NOT BE CONSTRUED TO INCLUDE YARD AND STREET SUBGRADE CERTIFICATION OR CERTIFICATION THAT THE ENTIRE PAD IS LEVEL. THAT IT WAS CONSTRUCTED IN THE DESIGNED LOCATION OR WAS GRADED TO THE CROSS-SECTION SET FORTH ON THE PLANS OR AS DESIGNATED IN THE SOILS REPORT.
4. AN APPROVED GRADING AND DRAINAGE PLAN MUST BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THIS PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
5. ALL DRAINAGE FACILITIES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT BUILDINGS FROM STORM RUNOFF MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF ANY BUILDINGS.
6. A GRADING PERMIT IS REQUIRED. BEFORE A GRADING PERMIT IS ISSUED BY THE CITY OF SURPRISE ENGINEERING SERVICES, THE CONTRACTOR MUST FIRST OBTAIN A DUST CONTROL PERMIT FROM MARICOPA COUNTY ENVIRONMENTAL SERVICES-AIR QUALITY DIVISION.
7. HAUL PERMITS, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
8. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
9. CONTRACTOR SHALL PROVIDE LEVEL BOTTOM IN ALL RETENTION BASINS AT ELEVATIONS AS SHOWN ON THE PLANS. SIDE SLOPES IN ALL RETENTION BASINS SHALL NOT EXCEED 4:1 UNLESS NOTED OTHERWISE ON THE PLANS.
10. DRYWELLS, WHEN REQUIRED, MUST BE DRILLED A MINIMUM OF TEN (10) FEET INTO PERMEABLE POROUS STRATA OR PERCOLATION TESTS WILL BE REQUIRED. THE CIVIL INSPECTOR MUST BE PRESENT BEFORE BACKFILL OR WELL PIPES ARE PLACED WITHIN ANY DRYWELLS.
11. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR REGISTERING THE DRYWELLS SHOWN ON THE PLAN WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ).
12. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE OF DRYWELLS SHOWN ON THE PLAN.
13. ACCESS BARRIERS/TRASH RACKS ARE REQUIRED ON THE EXPOSED ENDS OF ALL STORM DRAINS EIGHTEEN (18) INCHES IN DIAMETER AND GREATER. SEE DETAILS 5-06A, 5-06B, AND 5-06C. REFER TO MAG DETAILS 502-1 AND 502-2 FOR PIPES LESS THAN THIRTY (30) INCHES IN DIAMETER.
14. SOIL COMPACTION TEST RESULTS MUST BE SUBMITTED TO THE CITY OF SURPRISE ENGINEERING SERVICES FOR BUILDING PADS THAT HAVE ONE (1) FOOT OR MORE OF FILL MATERIAL INDICATED.
15. A PAD CERTIFICATION LETTER FOR EACH PHASE OR PARCEL MUST BE SUBMITTED TO THE CITY OF SURPRISE ENGINEERING SERVICES BY THE DEVELOPER STATING THAT EACH PAD HAS BEEN BUILT IN ACCORDANCE WITH THE SOILS INVESTIGATIVE REPORT AND CITY OF SURPRISE REQUIREMENTS.
16. APPROVAL OF THESE PLANS MUST NOT PREVENT THE CITY FROM REQUIRING THE CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.
17. ALL CONSTRUCTION SITES WITH DISTURBED AREAS OF ONE (1) ACRE OR GREATER SHALL HAVE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ALL ASSOCIATED DOCUMENTS (SEE ENGINEERING AND PERMITTING APPLICATION PACKET).

CAUTION REGARDING STORM DRAIN PIPES: CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE PIPE FROM DAMAGE DURING THE CONSTRUCTION STAGE. THE COVER ON THE DRAINAGE PIPE IS DESIGNED FOR FINAL GRADE; THEREFORE, EXTRA CARE MUST BE EXERCISED DURING THE CONSTRUCTION PHASE TO MAINTAIN COVER OVER PIPES.

NOTE REGARDING CMU AND RETAINING WALLS: THE CITY OF SURPRISE REQUIRES ALL WALLS BE APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT (623-222-3000). BUILDING PERMITS AND INSPECTIONS ARE REQUIRED PER THE INTERNATIONAL BUILDING CODE.

1. CONTRACTOR TO FOLLOW RECOMMENDATIONS LISTED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT. SHOULD ANY CONFLICTS ARISE BETWEEN THE SOILS INVESTIGATION REPORT AND THESE GRADING PLANS, THE CIVIL ENGINEER SHALL BE CONTACTED FOR CLARIFICATION.
2. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO UNFORESEEN FIELD CONDITIONS.
3. THE ENGINEER WILL PERFORM FIELD SURVEYS FOR PAD ELEVATION CERTIFICATIONS. UPON NOTIFICATION BY THE GRADING CONTRACTOR, THAT THE PADS ARE COMPLETE AND READY FOR CERTIFICATION. IT IS UNDERSTOOD THAT THIS CERTIFICATION PROVIDES ONLY A REPRESENTATIVE ELEVATION OF THE AVERAGE GRADE OF EACH LOT, BUILDINGS, OR UNIT PAD, AND SHALL NOT BE CONSTRUED TO INCLUDE YARD AND STREET SUBGRADE CERTIFICATION OR CERTIFICATION THAT THE ENTIRE PAD IS LEVEL, THAT IT WAS CONSTRUCTED IN THE DESIGNED LOCATION OR WAS GRADED TO THE CROSS-SECTION SET FORTH ON THE PLANS OR AS DESIGNATED IN THE SOILS REPORT.
4. AN APPROVED GRADING AND DRAINAGE PLAN MUST BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THIS PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
5. ALL DRAINAGE FACILITIES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT BUILDINGS FROM STORM RUNOFF MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF ANY BUILDINGS.
6. A GRADING PERMIT IS REQUIRED. BEFORE A GRADING PERMIT IS ISSUED BY THE CITY OF SURPRISE ENGINEERING SERVICES, THE CONTRACTOR MUST FIRST OBTAIN A DUST CONTROL PERMIT FROM MARICOPA COUNTY ENVIRONMENTAL SERVICES-AIR QUALITY DIVISION.
7. HAUL PERMITS, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
8. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
9. CONTRACTOR SHALL PROVIDE LEVEL BOTTOM IN ALL RETENTION BASINS AT ELEVATIONS AS SHOWN ON THE PLANS. SIDE SLOPES IN ALL RETENTION BASINS SHALL NOT EXCEED 4:1 UNLESS NOTED OTHERWISE ON THE PLANS.
10. DRYWELLS, WHEN REQUIRED, MUST BE DRILLED A MINIMUM OF TEN (10) FEET INTO PERMEABLE POROUS STRATA OR PERCOLATION TESTS WILL BE REQUIRED. THE CIVIL INSPECTOR MUST BE PRESENT BEFORE BACKFILL OR WELL PIPES ARE PLACED WITHIN ANY DRYWELLS.
11. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR REGISTERING THE DRYWELLS SHOWN ON THE PLAN WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ).
12. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE OF DRYWELLS SHOWN ON THE PLAN.
13. ACCESS BARRIERS/TRASH RACKS ARE REQUIRED ON THE EXPOSED ENDS OF ALL STORM DRAINS EIGHTEEN (18) INCHES IN DIAMETER AND GREATER. SEE DETAILS 5-06A, 5-06B, AND 5-06C. REFER TO MAG DETAILS 502-1 AND 502-2 FOR PIPES LESS THAN THIRTY (30) INCHES IN DIAMETER.
14. SOIL COMPACTION TEST RESULTS MUST BE SUBMITTED TO THE CITY OF SURPRISE ENGINEERING SERVICES FOR BUILDING PADS THAT HAVE ONE (1) FOOT OR MORE OF FILL MATERIAL INDICATED.
15. A PAD CERTIFICATION LETTER FOR EACH PHASE OR PARCEL MUST BE SUBMITTED TO THE CITY OF SURPRISE ENGINEERING SERVICES BY THE DEVELOPER STATING THAT EACH PAD HAS BEEN BUILT IN ACCORDANCE WITH THE SOILS INVESTIGATIVE REPORT AND CITY OF SURPRISE REQUIREMENTS.
16. APPROVAL OF THESE PLANS SHALL NOT PREVENT THE CITY FROM REQUIRING THE CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.
17. ALL CONSTRUCTION SITES WITH DISTURBED AREAS OF ONE (1) ACRE OR GREATER SHALL HAVE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ALL ASSOCIATED DOCUMENTS (SEE ENGINEERING AND PERMITTING APPLICATION PACKET).

NOTE REGARDING CMU AND RETAINING WALLS: THE CITY OF SURPRISE REQUIRES ALL WALLS BE APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT (623-222-3000). BUILDING PERMITS AND INSPECTIONS ARE REQUIRED PER THE INTERNATIONAL BUILDING CODE.



1. ALL ONSITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND THE "UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION" AS SPONSORED AND DISTRIBUTED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.), AND CITY OF SURPRISE SUPPLEMENTS TO MAG (MEASUREMENT AND PAYMENT TERMS DO NOT APPLY).
2. SUBGRADE PREP SHALL CONFORM TO MAG 2013 STANDARD SPECIFICATIONS SECTION 301.
3. AGGREGATE BASE COURSE SHALL CONFORM TO MAG 2013 STANDARD SPECIFICATION SECTION 310.
4. ASPHALTIC CONCRETE SHALL CONFORM TO MAG 2013 STANDARD SPECIFICATION SECTION 321, 3/4" MIX.
5. ALL CONCRETE SHALL CONFORM TO MAG 2013 STANDARD SPECIFICATION SECTION 725, CLASS B (2,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS), CLASS A (3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS), OR CLASS AA (4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS).
6. ALL PERMITS FROM APPLICABLE GOVERNMENT AGENCIES NECESSARY FOR CONSTRUCTION SHALL BE ACQUIRED PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR THE COMPLETION OF THIS PROJECT.
7. ALL REQUIRED AND APPLICABLE TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBJECT TO REVIEW OF THE CITY AND SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL.
8. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES, INCLUDING EXCAVATION, BORROW EMBANKMENT, SHRINK OR SWELL, GROUND COMPACTION, HAUL AND ANY OTHER ITEMS AFFECTING THE BID TO COMPLETE THE GRADING TO THE ELEVATIONS SHOWN ON THESE PLANS AND TO BASE THE BID SOLELY UPON HIS OWN CALCULATED QUANTITIES. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNER/DEVELOPER PRIOR TO CONSTRUCTION OF ANY MAJOR DISCREPANCIES BETWEEN HIS ESTIMATED QUANTITIES AND THOSE SHOWN ON THE PLANS. ALL GRADE ADJUSTMENTS SHALL BE APPROVED IN WRITING BY THE OWNER PRIOR TO MAKING ANY CHANGES.
9. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE SITE CONDITIONS WITH THE DRAWINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES AND OMISSIONS SHALL BE RESOLVED WITH THE PROJECT ENGINEER. DO NOT USE SCALED DIMENSIONS.
10. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND TAKE WHATEVER MEANS NECESSARY TO INSURE THAT ALL ROADS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.
11. AN APPROVED SET OF PLANS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES WORK IS IN PROGRESS. DEVIATION FROM THE PLANS WILL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION.
12. THE CONTRACTOR SHALL INSTALL ALL FRAMES AND COVERS FOR MANHOLES, VAGES, AND CULVERTS TO THE FINISHED GRADE IN ACCORDANCE WITH M.A.G. STANDARD DETAILS 270 AND 402. AS APPLICABLE, ALL UTILITY ACCESS POINTS PLACED IN TRAFFIC AREAS SHOULD BE TRAFFIC RATED.
13. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH SURFACE AND UNIFORM CROSS-SECTION. THE SLOPE OF THE EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS SHOWN ON THE PLANS AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPES SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED LAND SURVEYOR TO PROVIDE THE CONSTRUCTION LAYOUT. THE SURVEYOR SHALL VERIFY THE KNOWN BENCHMARK AND COMPARE THE SITE CONDITIONS WITH THE PLANS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OBSERVED SHOULD ANY BENCHMARK, GRADE OR DESIGN INDICATED ON THE PLANS BE SUSPECT. THE OWNER SHALL BE NOTIFIED OF SAID BENCHMARK, GRADE OR DESIGN PROBLEM AT LEAST TWENTY-FOUR (24) HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN IN THE AFFECTED AREA.
15. UPON COMPLETION OF THE WORK, THE CONTRACTOR AND HIS SURVEYOR SHALL CERTIFY IN WRITING TO THE OWNER THAT THE PROJECT CIVIL ENGINEERING IMPROVEMENTS WERE STAKED AND BUILT IN SUBSTANTIAL CONFORMANCE TO THE LINES AND GRADES SHOWN. UNLESS NOTED OTHERWISE, SUBSTANTIAL CONFORMANCE SHALL MEAN THAT BUILDING SITES HAVE BEEN CONSTRUCTED TO WITHIN 0.10± FEET OF FINISH BUILDING PAD ELEVATIONS AS DESIGNED BY THE ENGINEER. PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10± FEET OF FINISH GRADE AS DESIGNED BY THE ENGINEER. SITE FEATURES SHALL BE WITHIN 0.25 FEET OF SPECIFIED POSITION.
16. ACCESSIBLE STANDARDS MUST BE MET PER 2012 IBC, CHAPTER 11, AND 2009 ICC A117.1.
  1. THE MINIMUM WIDTH OF THE HANDICAP ACCESSIBLE ROUTE SHALL BE 36".
  2. THE MAXIMUM SLOPE SHALL BE 8.33% AT RAMPS (6" MAXIMUM RISE) AND 5% ELSEWHERE WITHOUT HANDRAILING AND WITH HANDRAILING WHERE GREATER THAN 5%. THE MAXIMUM CROSS SLOPE SHALL BE 2%. NO LEVEL CHANGES OR STEPS SHALL BE PERMITTED ALONG THIS ROUTE.
17. THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT ENGINEERING TESTING LABORATORY ACCEPTABLE TO PROVIDE THE CONSTRUCTION TESTING OF THE PROJECT EARTHWORK, ASPHALT PLACEMENT, AND CIVIL CONCRETE PLACEMENT. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT INITIAL SITE CONDITIONS CONFORM WITH THE PLANS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OBSERVED SHOULD ANY SOIL CONDITION ON THE SITE BE SUSPECT OF DETRIMENTAL CHARACTERISTICS. THE OWNER SHALL BE NOTIFIED OF CONCERNS AT LEAST TWENTY-FOUR (24) HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN ON THE AFFECTED AREA.
18. DURING THE COURSE OF CONSTRUCTION, TEST RESULTS SHALL BE SUBMITTED TO THE CONTRACTOR AND OWNER WHICH INDICATE IF WORK IS BEING DONE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
19. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE OF EXISTING IMPROVEMENTS AND VEGETATION IN THE WORK AREA. PAVEMENT, CURBS, AND ANY OTHER OBSTRUCTION DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.
21. IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION AND ARE BEYOND THE SCOPE OF THE DESIGN, THE OWNER SHALL BE NOTIFIED IMMEDIATELY.
22. CYPRESS CIVIL HEREBY CERTIFIES THAT ALL FINISHED GRADED AND PAVED AREAS CONTAINED WITHIN THIS DEVELOPMENT ARE DESIGNED WITH SLOPES OF AT LEAST 0.5%. CYPRESS CIVIL FURTHER CERTIFIES THAT THE PROPOSED DESIGN PROVIDES POSITIVE DRAINAGE THROUGHOUT THE DEVELOPMENT EXCEPT WITHIN DETENTION/RETENTION AREAS SPECIFIED WITHIN THE APPROVED DRAINAGE ANALYSIS FOR THIS PROJECT.
23. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND CYPRESS CIVIL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR CYPRESS CIVIL.
24. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING CYPRESS CIVIL AT 623-282-2498.

1. EXISTING UTILITY LOCATIONS, AS SHOWN ON THE PLANS, WERE COMPILED AND ARE PRESENTED BASED UPON PRELIMINARY INFORMATION AVAILABLE TO CYPRESS CIVIL DEVELOPMENT. UTILITY LOCATIONS AS SHOWN ARE NOT INTENDED TO BE EXACT OR COMPLETE AND CYPRESS CIVIL DEVELOPMENT DOES NOT ACCEPT LIABILITY OR RESPONSIBILITY FOR ANY INACCURACIES IN THE UTILITY LOCATIONS OR ANY UTILITY RELOCATIONS THAT MAY BE NECESSARY. PRIOR TO EXCAVATION, ARIZONA STATUTES REQUIRE THAT ANYONE WHO INTENDS TO EXCAVATE MUST PROVIDE TWO FULL WORKING DAYS NOTICE TO THE OWNERS OF ALL UTILITIES WITHIN THE PROJECT AREA. EXCAVATORS SHOULD CONTACT "ARIZONA BLUE STAKE" @ 1-800-782-5348 TWO (2) FULL WORKING DAYS PRIOR TO EXCAVATION. SATURDAYS, SUNDAYS, AND STATE HOLIDAYS ARE NOT CONSIDERED WORKING DAYS. ALSO BE ADVISED THAT THERE MAY BE OTHER UTILITIES IN THE PROJECT AREA THAT ARE NOT MEMBERS OF "ARIZONA BLUE STAKE". THE CONTRACTOR IS RESPONSIBLE TO POTHOLE ALL UTILITIES (SHOWN OR NOT SHOWN ON THE PLANS) MARKED BY BLUE STAKE PRIOR TO COMMENCING CONSTRUCTION OPERATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UNCOVER ALL EXISTING WATER AND SEWER LINES BEING CONNECTED TO AND TO VERIFY THE LOCATIONS, DEPTH, FLOW LINE, ELEVATIONS, AND SIZE OF PIPE BEFORE ANY CONSTRUCTION BEGINS.
3. ANY CONSTRUCTION PERFORMED WITHOUT THE KNOWLEDGE OF THE INSPECTOR OR HIS REPRESENTATIVE IS LIABLE FOR REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL VERIFY FINISHED GRADES AS SHOWN ON THE APPROVED GRADING AND DRAINAGE PLANS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE LOCATION AND INVERT OF THE BUILDING UTILITIES AS SHOWN ON THE APPROVED PLUMBING PLAN PRIOR TO CONSTRUCTION.
5. ALL WORK AND MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
6. ANY QUESTIONS RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL BE RAISED PRIOR TO THE COMMENCEMENT OF THE WORK IN QUESTION.
7. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT/INSTALL THE IMPROVEMENTS SHOWN ON THESE PLANS UNLESS SPECIFICALLY NOTED OTHERWISE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" DRAWINGS TO THE MUNICIPALITY HAVING JURISDICTION.
9. DIMENSIONS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY; SEE THE ARCHITECT'S DIMENSIONED SITE PLAN OR HORIZONTAL CONTROL PLAN FOR SITE LAYOUT. DO NOT SCALE THESE PLANS.
10. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DISTURBED OR DAMAGED PROPERTY INCLUDING CONCRETE, PAVEMENT, LANDSCAPING, AND IRRIGATION SYSTEMS TO ORIGINAL CONDITION PER MAG SPECIFICATIONS.
11. THE INVERT ELEVATIONS SHOWN ON THESE PLANS HAVE BEEN DESIGNED TO PROVIDE AT LEAST ONE (1) FOOT OF COVER OVER THE TOP OF THE PIPE (EXCLUDING THE PAVEMENT THICKNESS). THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE NEWLY INSTALLED PIPES FROM DAMAGE CAUSED BY CONSTRUCTION ACTIVITY ON THE SITE PRIOR TO THE FINAL PAVEMENT SECTION BEING INSTALLED.
12. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
13. THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT GEOTECHNICAL TESTING LABORATORY ACCEPTABLE TO PROVIDE THE CONSTRUCTION TESTING OF THE PROJECT BEDDING AND BACKFILL DURING THE COURSE OF CONSTRUCTION. TEST RESULTS SHALL BE SUBMITTED TO THE CONTRACTOR AND OWNER WHICH INDICATE IF WORK IS BEING DONE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
14. ALL VALVE BOXES, METER BOXES, MANHOLE RIMS, SEWER CLEAN OUT RIMS, ETC. SHALL BE ADJUSTED TO FINAL FINISHED GRADE PER MAG STANDARD DETAIL 270 AND 422 PRIOR TO ACCEPTANCE OF THE WORK BY OWNER.
15. ALL NON-METALIC BURIED UTILITY LINES SHALL HAVE #12 AWG COPPER CLAD STEEL TRACER WIRE WITH 30 MIL (HDPE) INSULATION. SECURELY ATTACH WIRE TO PIPE AT 9' INTERVALS. SEE WATER LINE TERMINATION DETAIL THIS SHEET. TRACER WIRE COLORS SHALL BE AS FOLLOWS:
  - PRIVATE WATER LINE - BLUE
  - PRIVATE SEWER LINE - GREEN
  - PRIVATE STORM DRAIN LINE - GREEN
  - PRIVATE GAS - YELLOW

1. ALL ON-SITE BUILDING SEWER CONNECTION LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
2. ALL ON-SITE DOMESTIC WATER SUPPLY LINES ARE PRIVATE. THE MATERIALS AND INSTALLATION SHALL BE PER THE REQUIREMENTS OF THE INTERNATIONAL PLUMBING CODE, LATEST EDITION.
3. COMPACTION, BEDDING, AND BACKFILL SHALL BE PER M.A.G. UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE RECOMMENDATIONS FOR UTILITY EXCAVATION CONTAINED WITHIN THE GEOTECHNICAL REPORT.
4. CONTRACTOR SHALL SUBMIT PIPE, FITTING, PIPE TAPPING, VALVE, TESTING, AND BACKFILL SUBMITTAL TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDER AND START OF INSTALLATION.
5. WATER PIPING SHALL BE INSTALLED A MINIMUM OF 12" ABOVE THE SEWER AT CROSSINGS PER IPC SECTION 603.2.
6. CONTRACTOR SHALL TEST ALL SEWER AND WATER PIPING PER IPC SECTIONS 107.2 AND 312 PRIOR TO BACKFILL AND COVER. CALL FOR INSPECTION AND WITNESS TESTING PRIOR TO CONCEALING WATER AND SEWER PIPING.
7. CONTRACTOR SHALL FLUSH AND DISINFECT ALL POTABLE WATER PIPING PER IPC SECTION 610 PRIOR TO OCCUPANCY.
8. THE TRANSITION FITTINGS FROM COPPER TO PVC SHALL COMPLY WITH SECTION 605.23 OF THE IPC (2018 EDITION).

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF, AND FACILITATE THE WORK OF, AN INDEPENDENT ENGINEERING TESTING LABORATORY ACCEPTABLE TO PROVIDE THE CONSTRUCTION TESTING OF THE PROJECT EARTHWORK, UTILITY BACKFILL, ASPHALT PLACEMENT, AND CIVIL CONCRETE PLACEMENT. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT INITIAL SITE CONDITIONS CONFORM WITH THE PLANS AND SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES OBSERVED SHOULD ANY SOIL CONDITION ON THE SITE BE SUSPECT OF DETRIMENTAL CHARACTERISTICS. THE CONTRACTOR SHALL BE NOTIFIED OF CONCERNS AT LEAST TWENTY-FOUR (24) HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN ON THE AFFECTED AREA.
2. DURING THE COURSE OF CONSTRUCTION, TEST RESULTS SHALL BE SUBMITTED TO THE CONTRACTOR AND OWNER WHICH INDICATE IF WORK IS BEING DONE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL PROVIDE POSITIVE GRADE AWAY FROM ALL BUILDING FOUNDATIONS.

1. ALL ON-SITE PRIVATE HDPE STORM DRAIN MATERIAL SHALL MEET THE REQUIREMENTS OF ASTM F2648 AND SHALL BE WATER TIGHT JOINTS UNLESS OTHERWISE NOTED ON THE PLANS. THE DESIGN MANINGING'S 'N' VALUE SHALL BE 0.009. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D3212, ASTM F2487 AND ASTM F1417. PIPES SHALL BE DESIGNED TO SUPPORT H-25 LOADING WITH 1-FOOT OF COVER. INSTALL PIPE PER MANUFACTURER SPECIFICATIONS, AS WELL AS, MAG STANDARD SPECIFICATION SECTION 601.
2. FITTINGS SHALL BE IN ACCORDANCE WITH ASTM F2306 AND ASTM F2648. WATER TIGHT FITTINGS SHALL PROVIDE A JOINT THAT MEETS THE WATER TIGHT REQUIREMENTS OF ASTM D3212. TO INSURE COMPATIBILITY IN THE FIELD, THE PIPE MANUFACTURER SHALL PROVIDE ALL FITTINGS.
3. UNDERGROUND RETENTION TANKS SHALL MEET THE REQUIREMENTS OF ASTM D2465, D2466, D2467 AND D2468. MANUFACTURER SHALL DESIGN AND MANUFACTURE RISERS, STUB OUTS, BULKHEADS, AND ACCESS LADDERS.
4. ALL PVC STORM DRAIN MATERIAL SHALL MEET THE REQUIREMENTS OF ASTM D1784, D1785, AND D2665. CONNECTIONS SHALL PRIMED AND JOINED USING SOLVENT CEMENT PER ASTM F656 AND ASTM D2564.
5. PVC FITTINGS SHALL BE IN ACCORDANCE WITH ASTM D2665, CONNECTIONS SHALL PRIMED AND JOINED USING SOLVENT CEMENT PER ASTM F656 AND ASTM D2564.

1. RIP RAP MATERIAL SHALL CONFORM TO MAG STANDARD SPECIFICATION SECTION 703. RIP RAP SHALL BE HAND PLACED RIP RAP PER MAG STANDARD SPECIFICATION SECTION 220.5 AND SHALL BE WELL GRADED, VARYING IN SIZE FROM 4 TO 8 INCHES ( $d_{60}=6"$ ,  $T=2d_{60}$ ). THE RIP RAP LAYER SHALL BE 12 INCHES MINIMUM THICKNESS.
2. GROUTED RIP RAP SHALL BE INSTALLED PER MAG STANDARD SPECIFICATION SECTION 220.6.
3. THE GRADING CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL BENEATH ALL PROPOSED RIP RAP AREAS SUCH THAT THE FINISHED SURFACE OF THE RIP RAP WILL MATCH THE FINISHED SURFACE ELEVATION AND SLOPE AS CALLED OUT ON THESE PLANS.

	FLOW-LINE		SPOT ELEV. (EXIST. GRADE)
	EXISTING CONTOUR		SPOT ELEV. (NEW GRADE)
	NEW CONTOUR		RIGHT-OF-WAY
	EXISTING CONCRETE		BACK OF CURB
	EXISTING WALL		SIDEWALK
	NEW ASPHALT		RECORDED VALUE
	NEW STABILIZED DECOMPOSED GRANITE		MEASURED VALUE
	NEW CONCRETE		RADIUS
	NEW WALL		PAVEMENT (ASPHALT)
	EXISTING PAVEMENT EDGE		CONCRETE
	EXISTING CURB		GUTTER
	EXISTING PAINT STRIPE		TOP OF CURB
	NEW CURB		FINISHED GRADE
	NEW PAINT STRIPE		TOP OF FOOTING
	EXISTING STORM DRAIN PIPE		TOP OF WALL
	NEW STORM DRAIN PIPE		LOW POINT
	EXISTING SEWER MANHOLE		HIGH POINT
	EXISTING WATER VALVE		GRADE BREAK
	EXISTING WATER METER		FINISHED FLOOR ELEVATION
	EXISTING BACKFLOW PREVENTER		FINISH GRADE HIGH
	EXISTING FIRE HYDRANT		FINISH GRADE LOW
	EXISTING IRRIGATION VALVE		PUBLIC UTILITY EASEMENT
	EXISTING STORM DRAIN MANHOLE		MATCH EXISTING
	EXISTING TRANSFORMER		RIM
	EXISTING SIGN		INVERT
	EXISTING SITE LIGHT		LENGTH
	EXISTING STREET LIGHT		SLOPE
	EXISTING ELECTRIC PULL BOX		
	EXISTING ELECTRICAL EQUIPMENT		
	EXISTING COMMUNICATION PEDESTAL		
	EXISTING COMMUNICATION PULL BOX/VAULT		

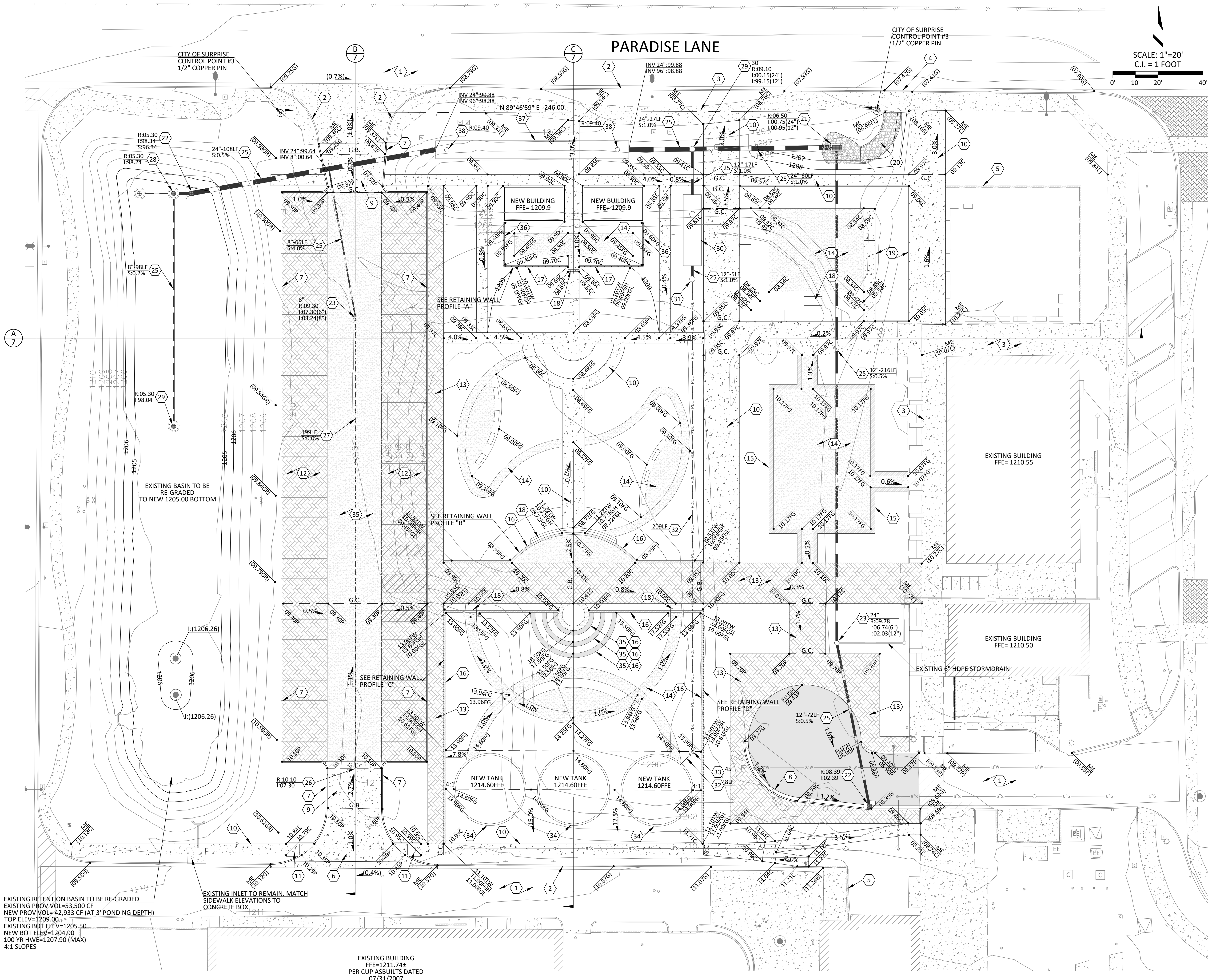
# SURPRISE WATER CONSERVATION GARDEN

CYPRESS PROJECT NO: 19.135

# notes

[illegible]





# KEYNOTES

- 1 EXISTING ASPHALT TO REMAIN.
- 2 EXISTING CURB TO REMAIN.
- 3 EXISTING CONCRETE SIDEWALK TO REMAIN.
- 4 EXISTING SIDEWALK SCUPPER TO REMAIN.
- 5 EXISTING MASONRY SCREEN WALL TO REMAIN.
- 6 NEW DRIVEWAY PER MAG DETAIL 251.
- 7 NEW CONCRETE VERTICAL CURB PER MAG DETAIL 222, TYPE 'A'.
- 8 NEW CONCRETE VERTICAL CURB AND GUTTER PER MAG DETAIL 220, TYPE 'A'.
- 9 NEW 6" CONCRETE PAVEMENT OVER 4" ABC PER DETAIL A, SHEET 6. INSTALL WITH THICKEN EDGE ON ALL SIDES PER DETAIL B, SHEET 6. CONTROL JOINT SPACING SHALL BE 10' MAXIMUM.
- 10 NEW CONCRETE SIDEWALK PER MAG DETAIL 230. MAXIMUM CROSS SLOPE = 1.8%, MAXIMUM RUNNING SLOPE = 4.8% PER ICC A117.1, CHAPTER 4, ACCESSIBLE ROUTES.
- 11 NEW 6" CONCRETE ACCESS RAMP PER IBC CHAPTER 11 AND ICC A117.1, SECTION 405, RAMP. PROVIDE TRACTION SURFACE CONSISTING OF 1/4"x1/4" TOOLED GROOVES, 1" O.C. REFER TO DETAIL C, SHEET 6.
- 12 NEW TRAFFIC RATED, PERMEABLE PAVERS. REFER TO DETAIL D, SHEET 6 AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS.
- 13 NEW PAVERS. REFER TO DETAIL E, SHEET 6 AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS.
- 14 NEW STABILIZED DECOMPOSED GRANITE. REFER TO DETAIL F, SHEET 6 AND HARDSCAPE PLANS FOR ADDITIONAL DETAILS.
- 15 NEW WALL. REFER TO LANDSCAPE PLANS FOR DETAILS, MATERIAL, FINISHES, AND HEIGHT.
- 16 NEW MASONRY RETAINING WALL. SEE PROFILES, SHEET 9. REFER TO STRUCTURAL PLANS FOR ADDITIONAL DETAILS.
- 17 NEW COMBINATION MASONRY RETAINING WALL AND FENCE. REFER TO STRUCTURAL PLANS AND LANDSCAPE PLANS FOR DETAILS, MATERIAL, FINISHES, AND HEIGHT.
- 18 NEW STAIRS. REFER TO LANDSCAPE HARDSCAPE PLANS FOR DETAILS.
- 19 NEW RAISED STEEL PLANTER. REFER TO LANDSCAPE PLANS FOR DETAILS, MATERIAL, FINISHES AND HEIGHT.
- 20 NEW GROUTED RIP RAP SWALE. SEE DETAIL G, SHEET 6. LENGTH AND WIDTH INDICATED PER PLAN.
- 21 NEW CATCH BASIN PER MAG 535, TYPE 'F' - DOUBLE. RIM AND INVERT INDICATED PER PLAN.
- 22 NEW 24" DIAMETER NYLOPLAST DRAINAGE BASIN AND 2'x2' STEEL BAR GRATE. PER DETAIL 1, SHEET 6.
- 23 NEW NYLOPLAST DRAINAGE BASIN AND SOLID COVER. PER DETAIL 2, SHEET 6. DIAMETER, RIM, AND INVERT INDICATED PER PLAN.
- 24 NEW 30" DIAMETER NYLOPLAST DRAINAGE BASIN AND 2'x2' STEEL BAR GRATE WITH 24" SUMP. BOLT GRATE TO FRAME. PER DETAIL 1, SHEET 6 AND SUMP DETAIL, SHEET 7. RIM AND INVERT INDICATED PER PLAN.
- 25 NEW HDPE STORM DRAIN PIPE WITH MANNING n=0.012 AND WATER TIGHT JOINTS. SIZE, LENGTH, AND SLOPE INDICATED ON PLAN. REFER TO STORM DRAIN NOTES, SHEET 3.
- 26 NEW 8" NYLOPLAST INLINE DRAIN WITH SOLID COVER. PER DETAIL 3, SHEET 6.
- 27 NEW 6" SINGLE-WALL PERFORATED, HDPE UNDERDRAIN PIPE PER DETAIL J SHEET 6.
- 28 NEW TWO CHAMBER DRY WELL PER DETAIL, SHEET 7. ADJUST RIM ELEVATIONS TO FINAL GRADE.
- 29 NEW SINGLE CHAMBER REMOTE DRY WELL PER DETAIL, SHEET 7. ADJUST RIM ELEVATIONS TO FINAL GRADE.
- 30 NEW 10,000 GALLON XEREX, FIBERGLASS STORMWATER HARVESTING STORAGE TANK, OR APPROVED EQUAL. REFER TO IRRIGATION PLANS FOR DETAILS.
- 31 NEW PUMP WET WELL PER DETAIL, SHEET 7.
- 32 NEW 2" PVC SCHEDULE 80, PUMP DISCHARGE PIPE. MIN. BURIAL DEPTH 18"
- 33 NEW 2" PVC SCHEDULE 80, FITTING. TYPE PER PLAN.
- 34 NEW STORMWATER HARVESTING STORAGE CISTERN. REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR DETAILS.
- 35 NEW TRAFFIC RATED, PERMEABLE CONCRETE PAVING. REFER TO DETAIL H, SHEET 6 AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS.
- 36 NEW FENCE. REFER TO LANDSCAPE PLANS FOR DETAILS, MATERIAL, FINISHES, AND HEIGHT.
- 37 NEW 96" DIAMETER, 14 GAUGE, POLYMER COATED TYPE 2 CMP UNDERGROUND STORM WATER RETENTION TANK. INSTALL IN ACCORDANCE WITH MAG SECTIONS 621, 760, AND MANUFACTURER RECOMMENDATIONS. EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH MAG SPECIFICATIONS SECTION 601. REFER TO STORM DRAIN NOTES, SHEET 3 AND DETAILS, SHEET 7. ALL JOINTS SHALL BE WATER TIGHT. TOTAL LENGTH = 82 LINEAR FEET VOLUME PROVIDED = 4,121 CUBIC FEET INVERT=1197.00 / TOP=1205.00
- 38 NEW 48" DIAMETER CMP ACCESS RISER, CONCRETE COLLAR, AND TRAFFIC RATED FRAME AND GRATE STAMPED WITH THE WORDS "STORMWATER RETENTION". ADJUST RIM TO FINAL GRADE. REFER TO DETAIL ON SHEET 7.

urban culture design  
734 west polk street  
phoenix, arizona 85007  
contact: tiffany halperin  
talk: 602-717-0702  
email: tiffany@urbanculturedesign.com

## SURPRISE WATER CONSERVATION GARDEN

CITY HALL  
SURPRISE, ARIZONA

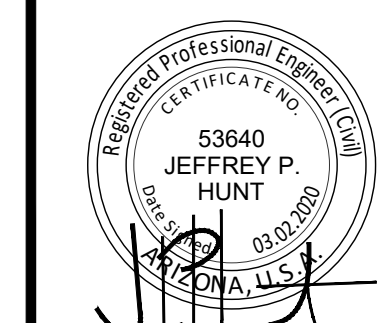
WATER RESOURCE MANAGEMENT  
contact: Amy Peterson  
email: Amy.Peterson@surpriseaz.gov  
talk: (623) 222-7033

**CYPRESS CIVIL**  
4450 north 12th street, #228  
phoenix, arizona 85014  
p: 623.282.2498  
e: jphunt@cypresscivil.com

CYPRESS PROJECT NO: 19.135

### grading and drainage plan

<input type="radio"/>	2ND CITY SUBMITTAL
<input checked="" type="radio"/>	1ST CITY SUBMITTAL
<input type="radio"/>	PRELIMINARY PLANS PLANTING AND IRRIG.
<input type="radio"/>	CONCEPT DRAWINGS
MAR. 2ND, 2020	
JPH	
JPH	
#	UCD PROJECT NO. 19015

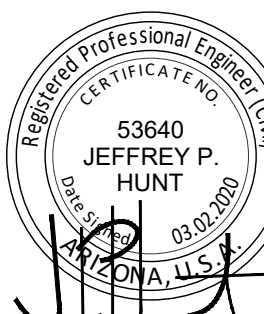




## utility plan

- 1 CONNECT TO EXISTING 6" SEWER. CONTRACTOR TO VERIFY SIZE, LOCATION, INVERT, AND CONDITION PRIOR TO CONSTRUCTION.
- 2 NEW 6" PVC SDR-35 SEWER. LENGTH AND SLOPE INDICATED ON PLAN. INSTALL TRACER WIRE PER GENERAL UTILITY NOTE 15, SHEET 3.
- 3 NEW ONE-WAY SEWER CLEAN OUT PER DETAIL I, SHEET 6. RIM AND INVERT INDICATED ON PLAN. CONTRACTOR TO ADJUST RIM TO FINAL GRADE.
- 4 CONNECT TO EXISTING ONE-WAY SEWER CLEANOUT. CONTRACTOR TO VERIFY LOCATION, INVERT, AND CONDITION PRIOR TO CONSTRUCTION.

UCD PROJECT NO. 190



Copyright © 2017 by Urban Culture Design



# SURPRISE WATER CONSERVATION GARDEN

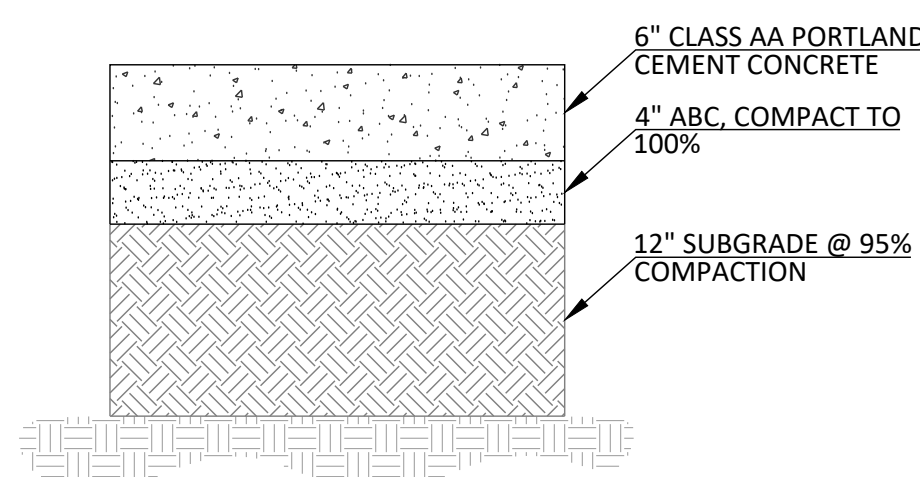
CITY HALL  
SURPRISE, ARIZONA

WATER RESOURCE MANAGEMENT  
contact: Amy Peterson  
email: Amy.Peterson@surpriseaz.gov  
talk: (623) 222-7033

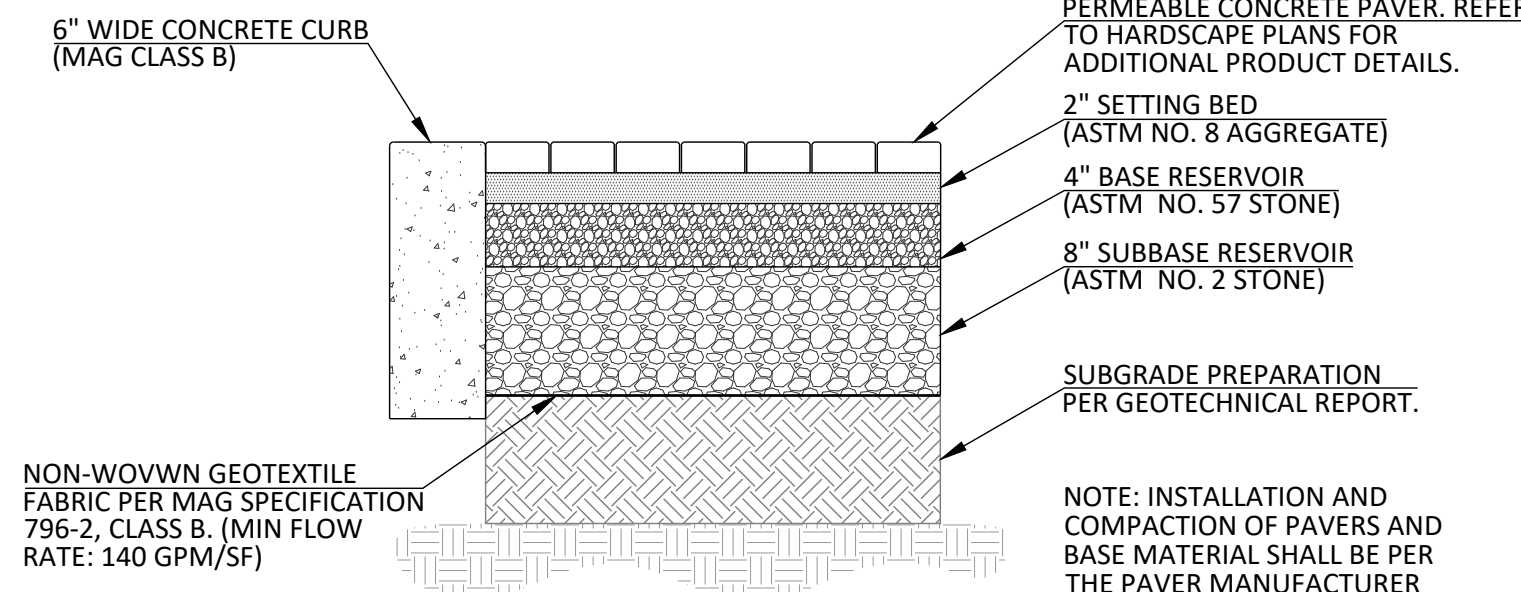
**CYPRESS CIVIL**  
4450 north 12th street, #228  
phoenix, arizona 85014  
p: 623.282.2498  
e: jphunt@cypresscivil.com

CYPRESS PROJECT NO: 19.135

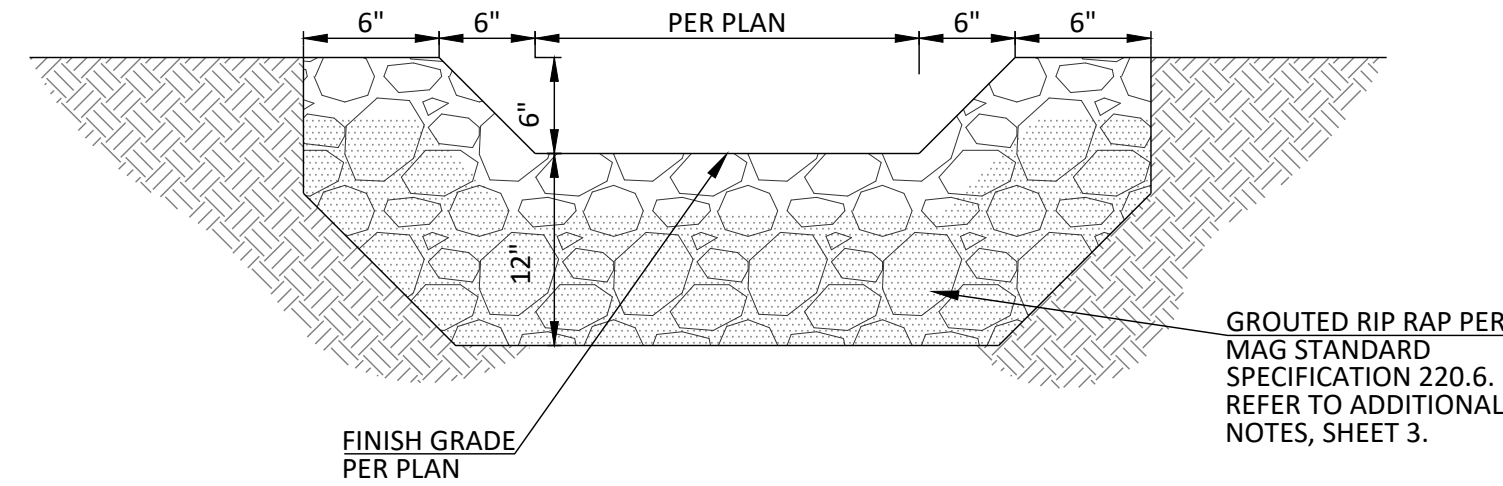
details



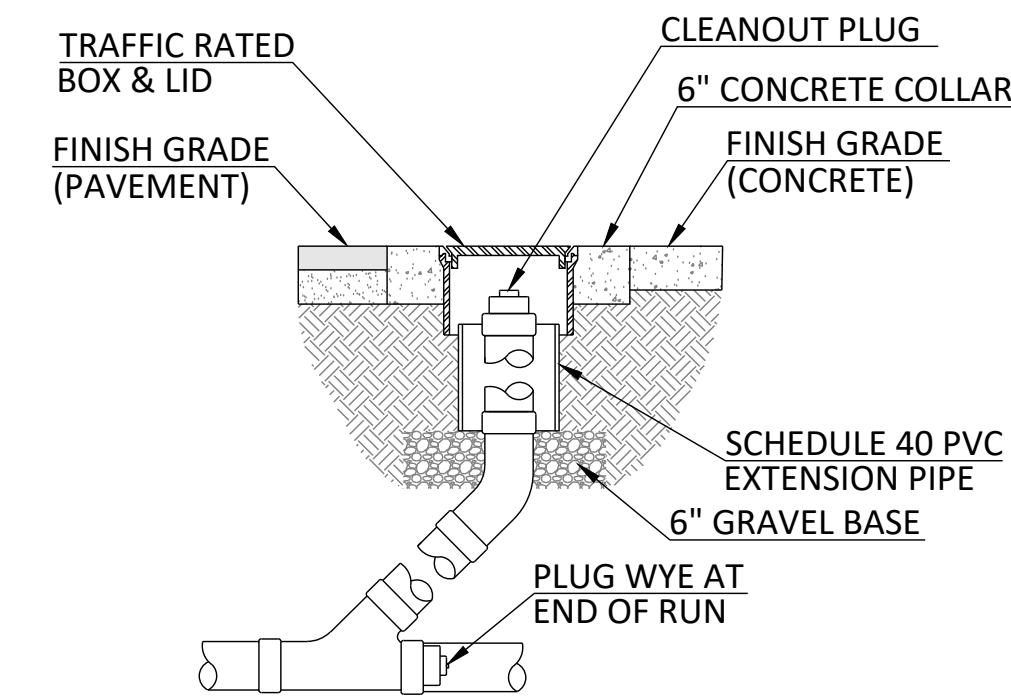
**A** PAVEMENT SECTION  
UN-REINFORCED SCALE: 1"=1'



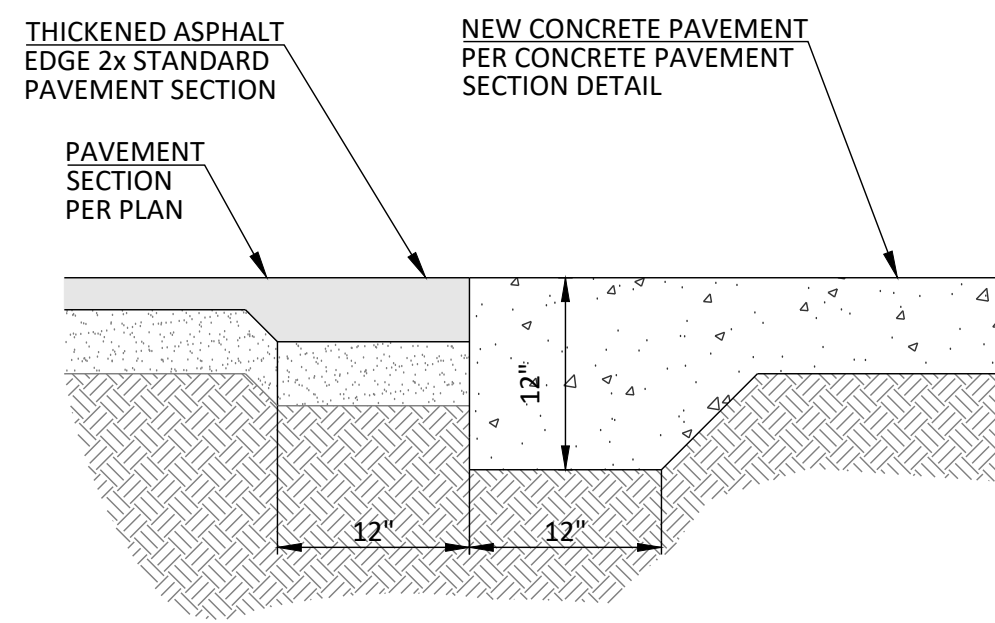
**D** PERMEABLE PAVER  
SCALE: 1"=1'



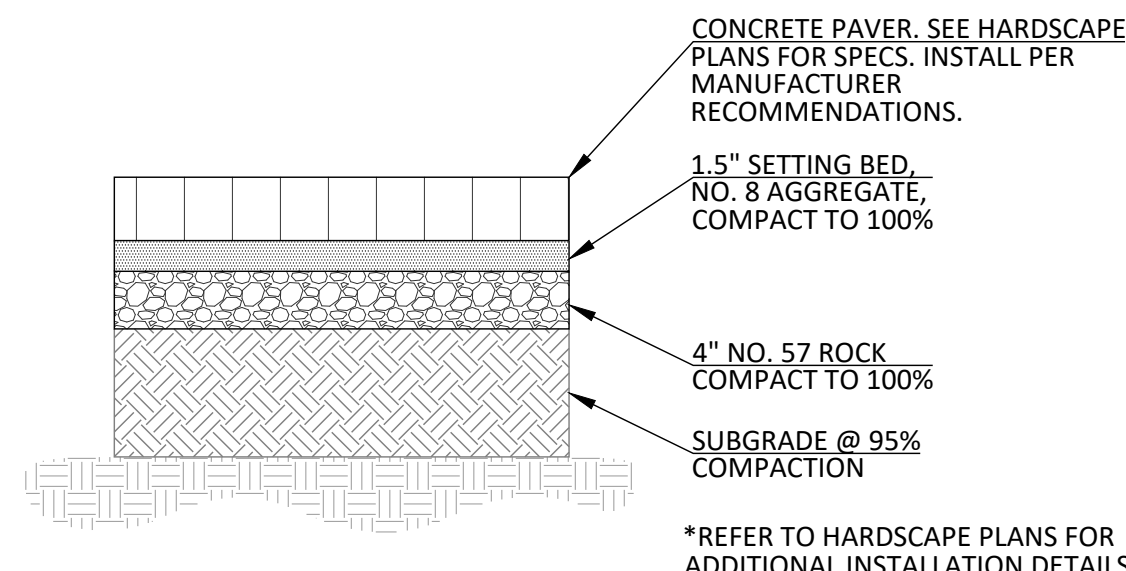
**G** RIP RAP SWALE DETAIL  
SCALE: 1"=1'



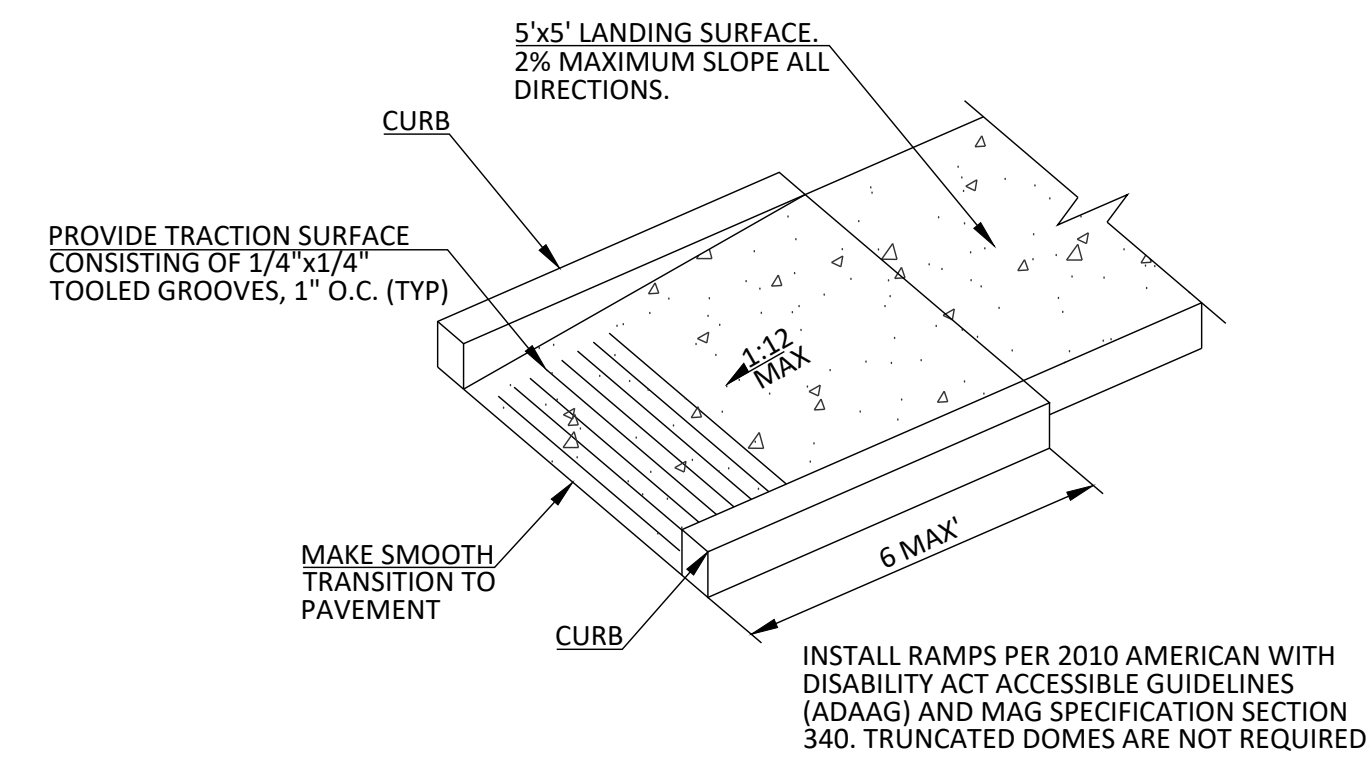
**I** ONE-WAY CLEAN OUT  
SCALE: N.T.S.



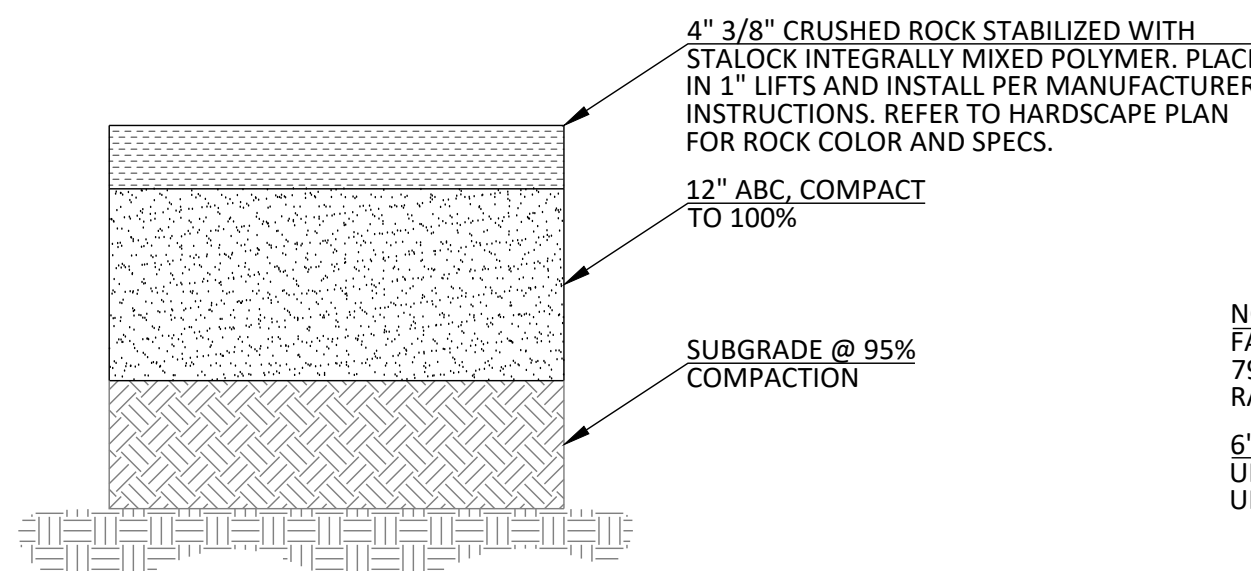
**B** THICKENED PAVEMENT EDGE  
SCALE: 1"=1'



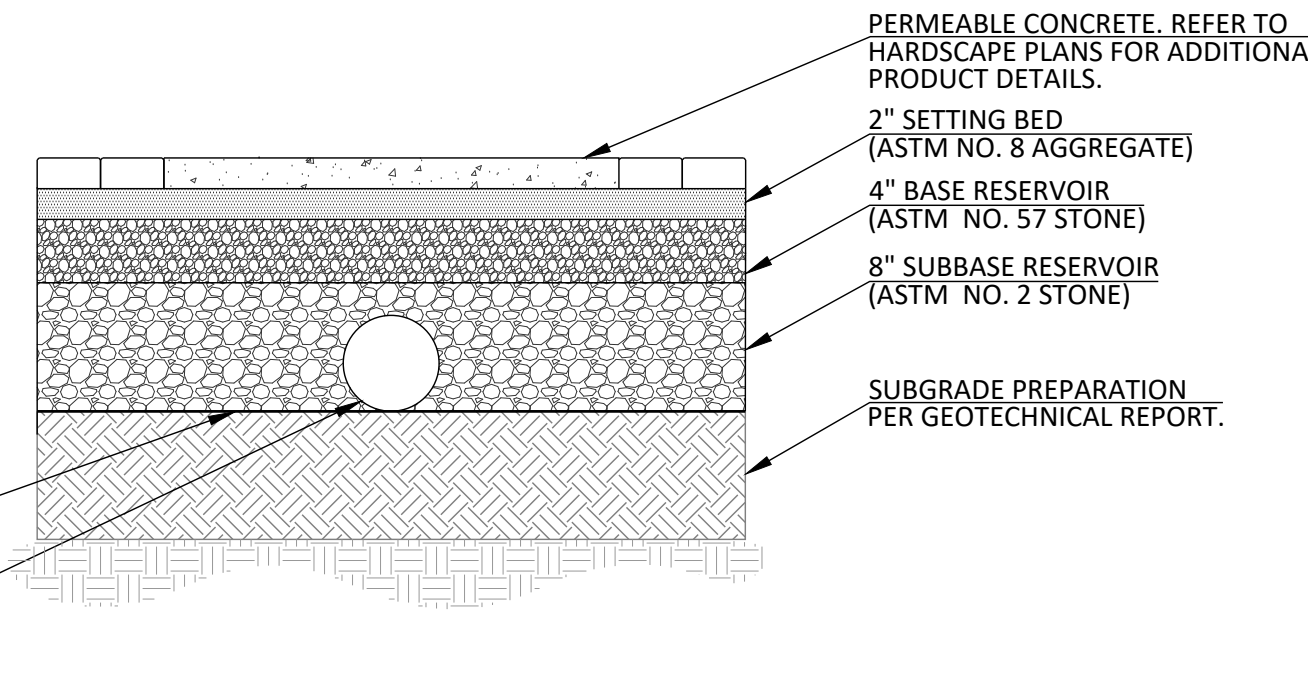
**E** PAVER SECTION  
SCALE: 1"=1'



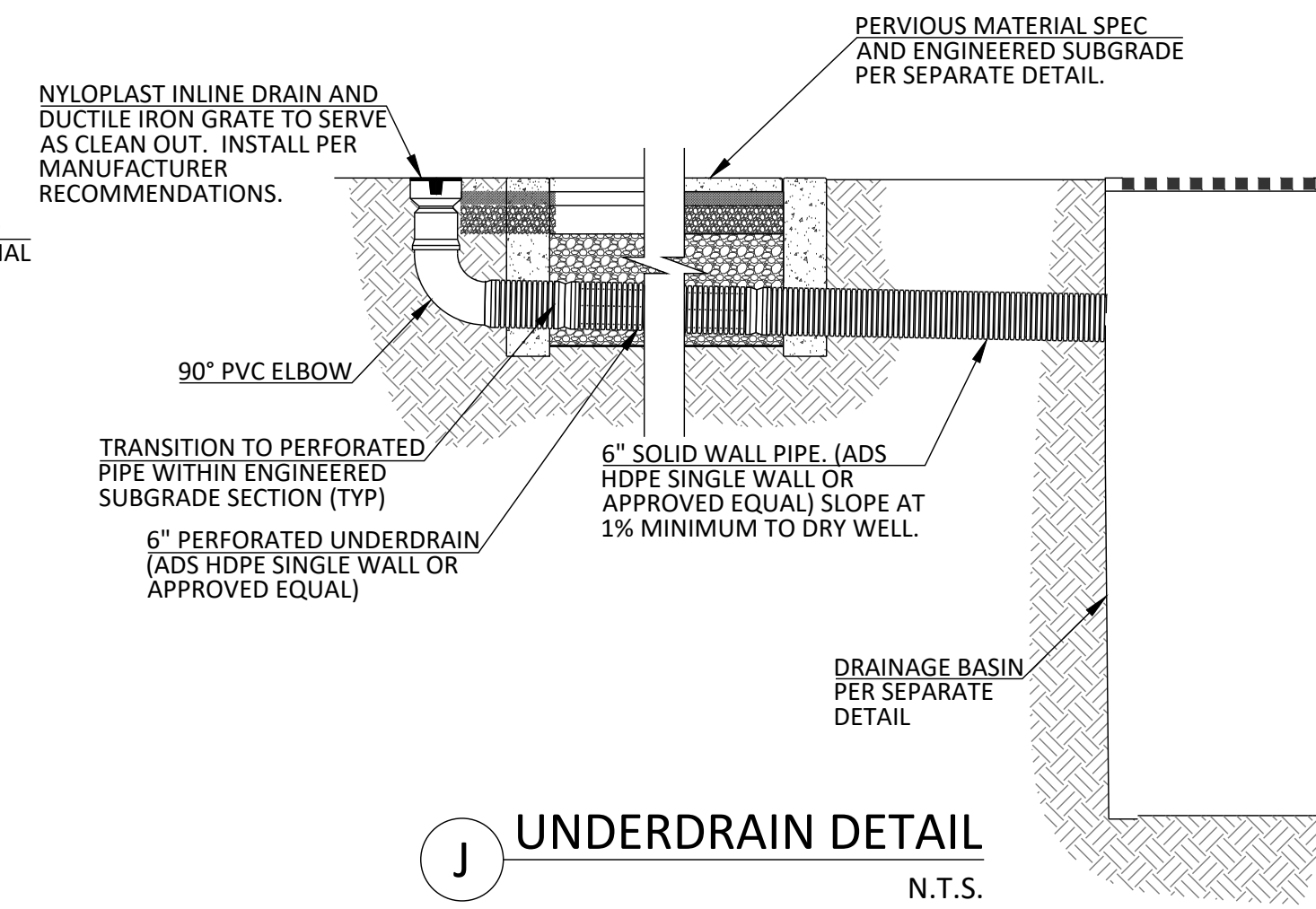
**C** ACCESSIBLE RAMP  
N.T.S.



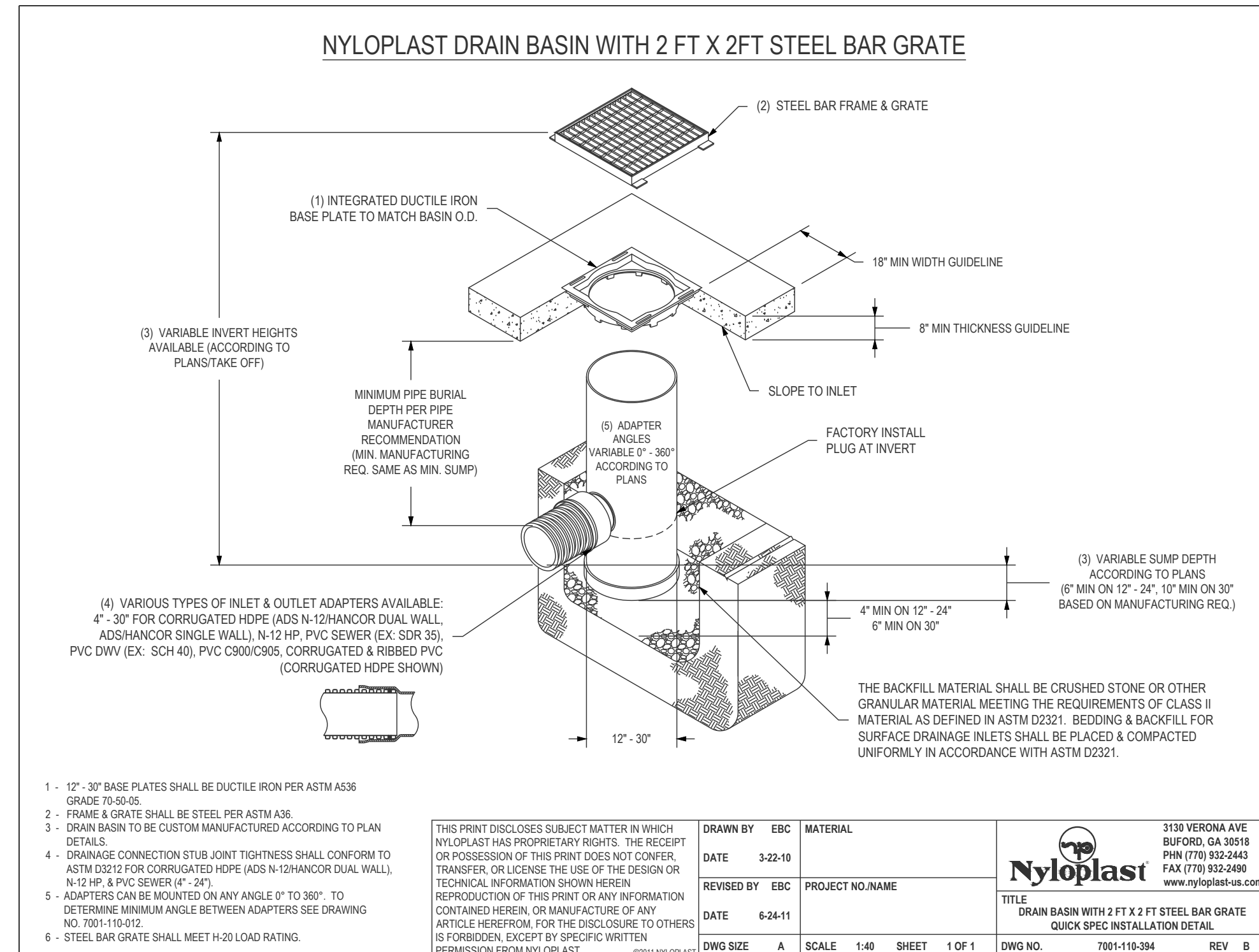
**F** DG PAVEMENT SECTION  
SCALE: 1"=1'



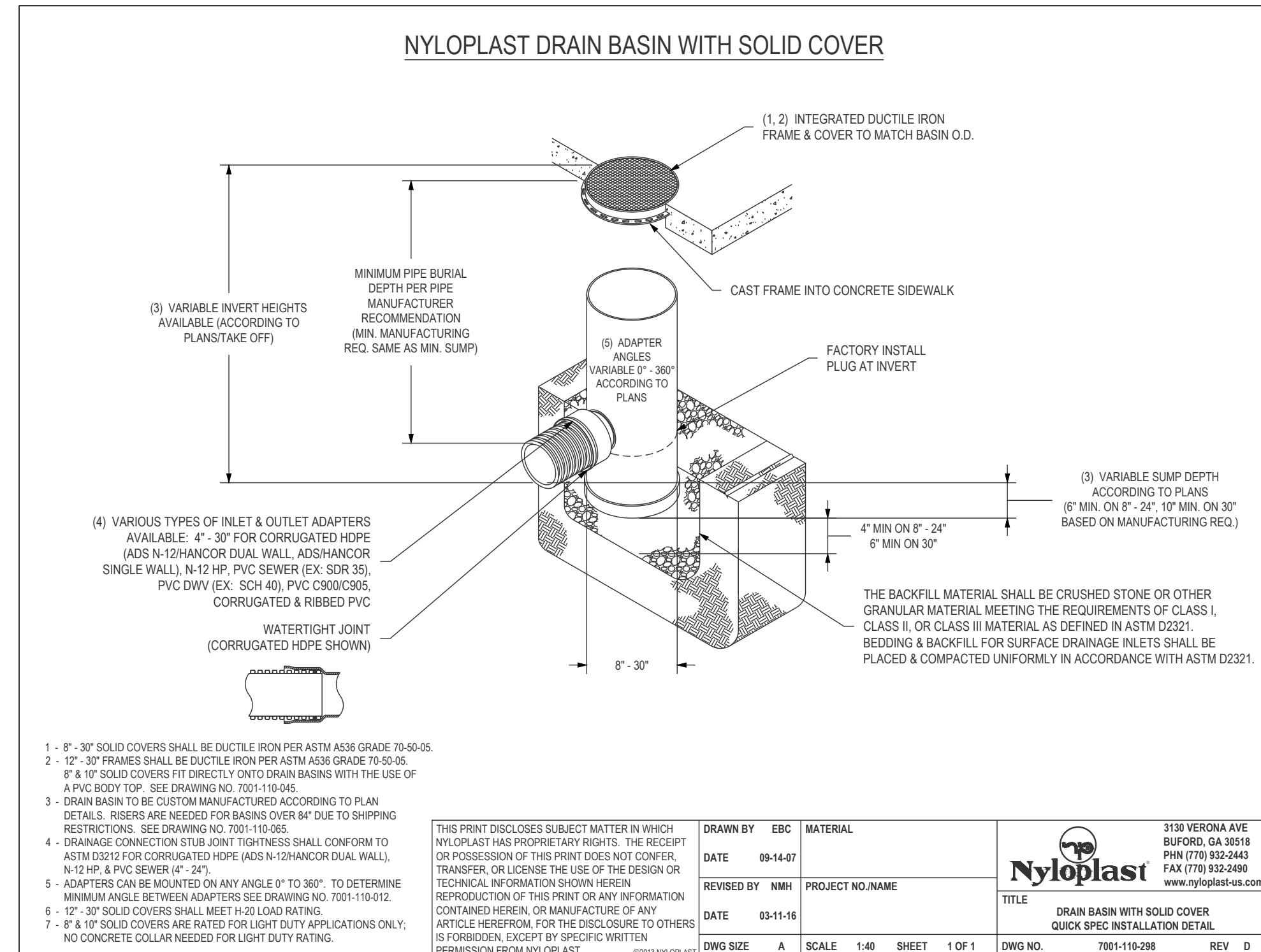
**H** PERMEABLE CONCRETE  
SCALE: 1"=1'



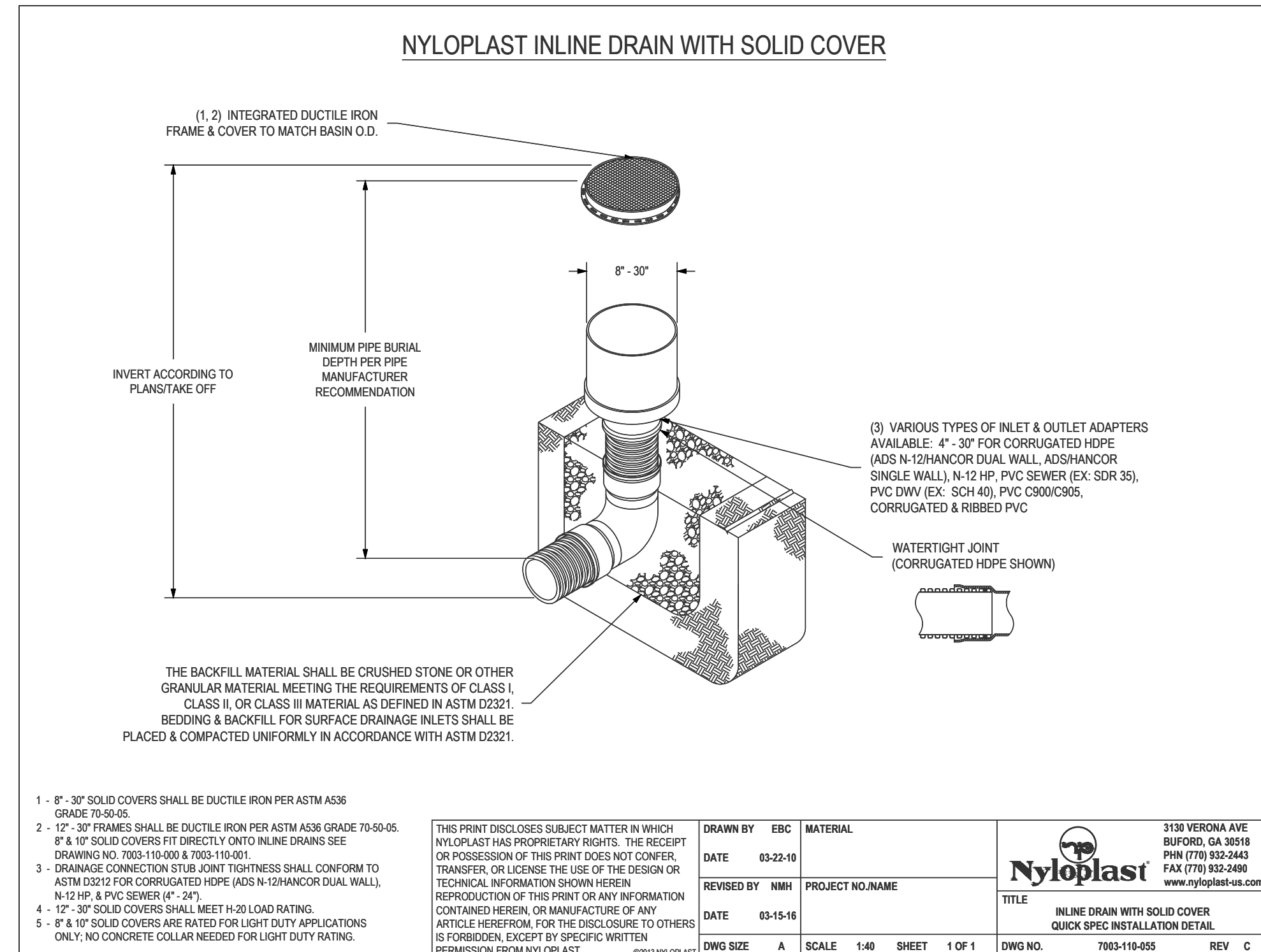
**J** UNDERDRAIN DETAIL  
N.T.S.



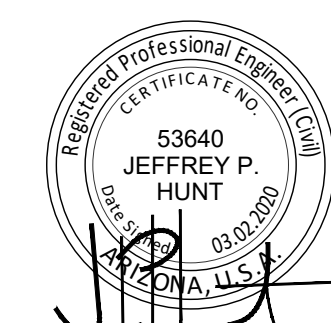
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY EBC	DATE 3-22-10	MATERIAL	3130 VERONA AVE BURLINGTON, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
1 - 12" - 30" BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	REVISED BY EBC	DATE 6-24-11	PROJECT NO./NAME	TITLE DRAIN BASIN WITH 2 FT X 2 FT STEEL BAR GRATE QUICK SPEC INSTALLATION DETAIL
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	DWG SIZE A	SCALE 1:40	SHEET 1 OF 1	DWG NO. 7001-110-394 REV B



THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY EBC	DATE 09-14-07	MATERIAL	3130 VERONA AVE BURLINGTON, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
1 - 12" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	REVISED BY NMH	DATE 09-11-16	PROJECT NO./NAME	TITLE DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	DWG SIZE A	SCALE 1:40	SHEET 1 OF 1	DWG NO. 7001-110-290 REV D



THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY EBC	DATE 09-22-10	MATERIAL	3130 VERONA AVE BURLINGTON, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
1 - 12" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	REVISED BY NMH	DATE 05-15-16	PROJECT NO./NAME	TITLE INLINE DRAIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	DWG SIZE A	SCALE 1:40	SHEET 1 OF 1	DWG NO. 7003-110-055 REV C



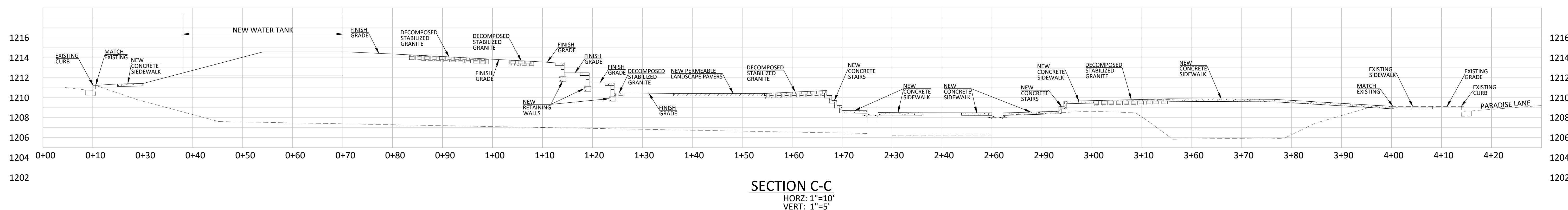
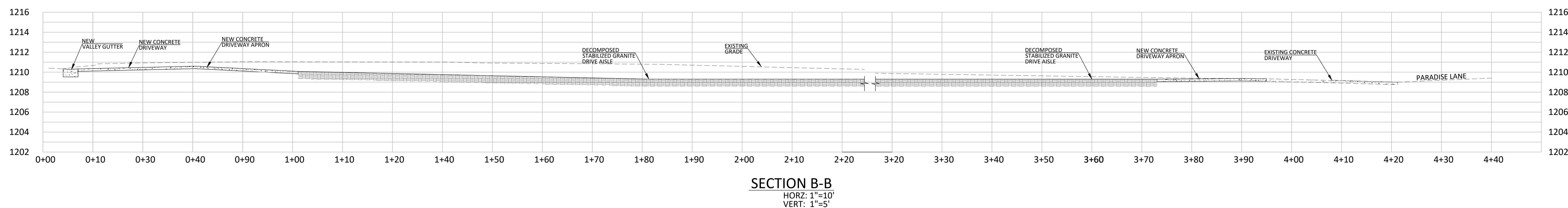
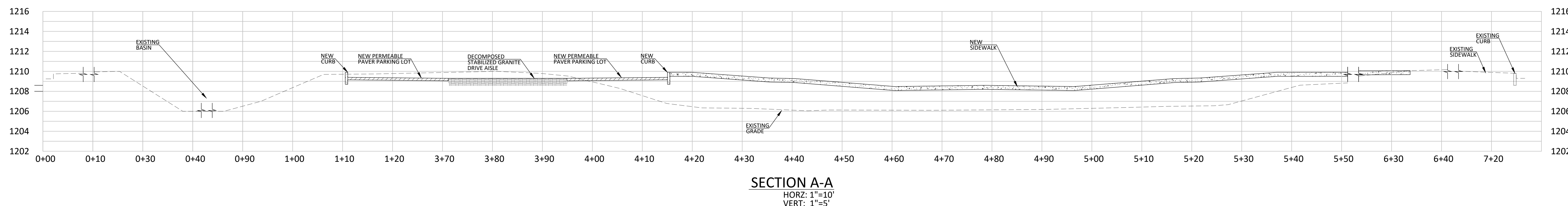




# SURPRISE WATER CONSERVATION GARDEN

CITY HALL  
SURPRISE, ARIZONA

WATER RESOURCE MANAGEMENT  
contact: Amy Peterson  
email: Amy.Peterson@surpriseaz.gov  
talk: (623) 222-7033



 **CYPRESS  
CIVIL**  
4450 north 12th street, #228  
phoenix, arizona 85014  
p: 602.282.2498  
e: [ijphunt@cypresscivil.com](mailto:ijphunt@cypresscivil.com)

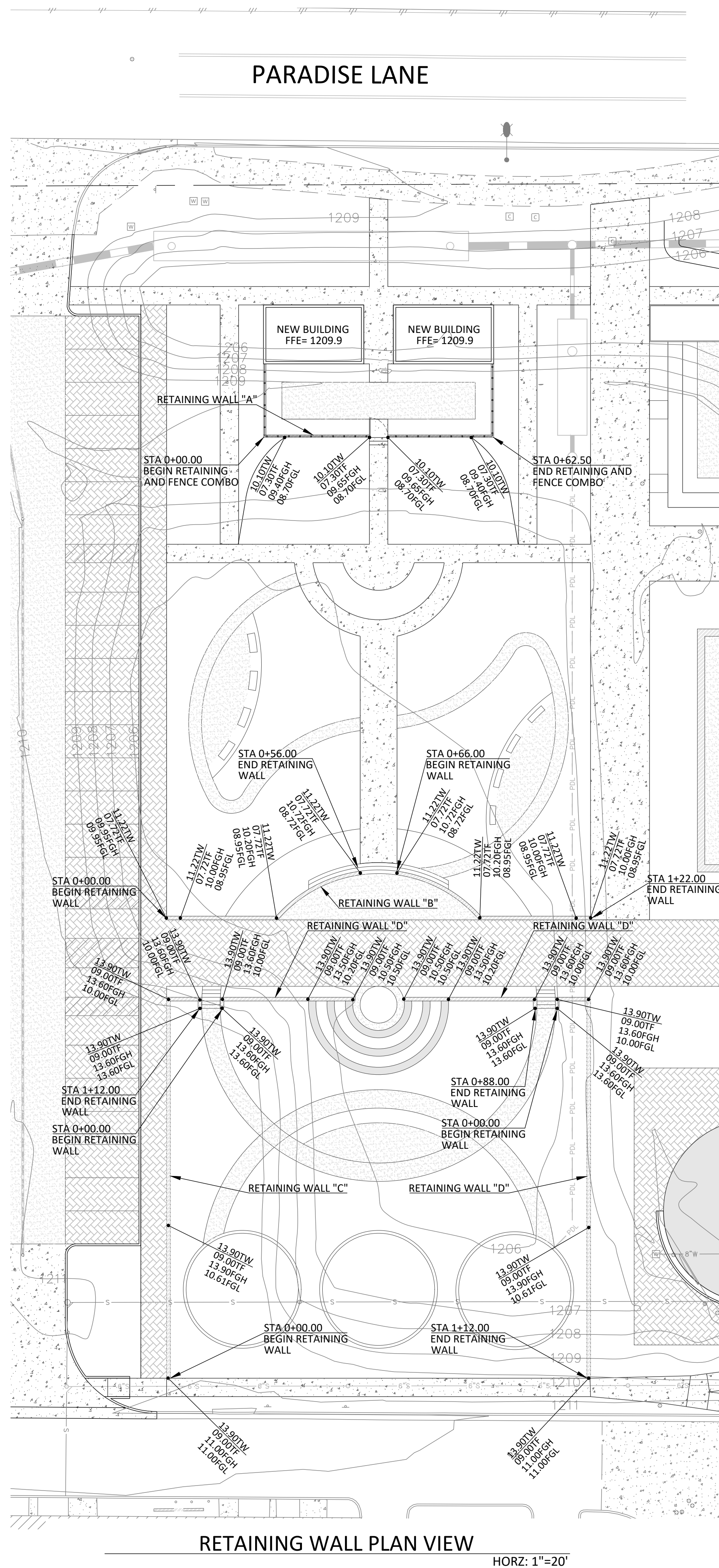
CYPRESS PROJECT NO: 19.135

[illegible]

## sections

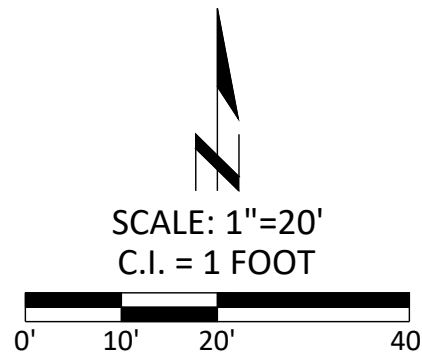




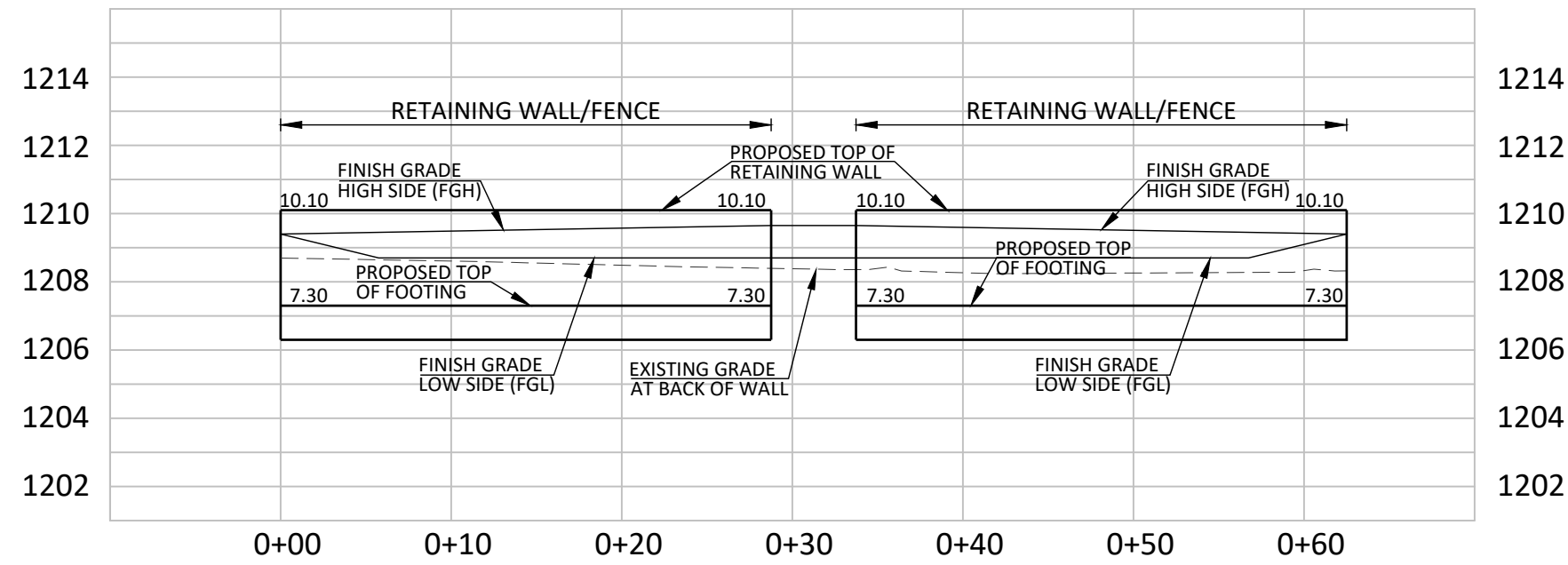


RETAINING WALL PLAN VIEW

HORZ: 1"=20'

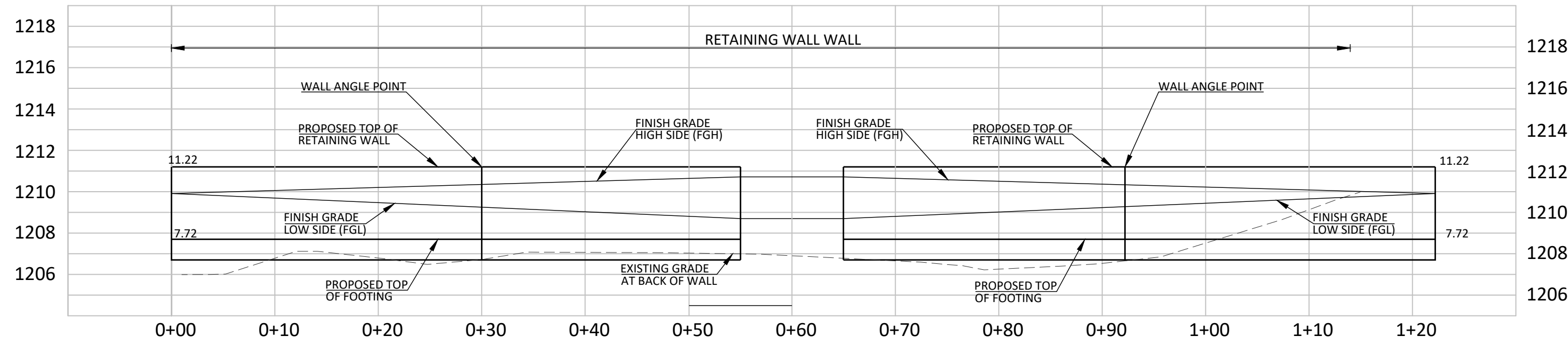


SCALE: 1"=20'  
C.I. = 1 FOOT



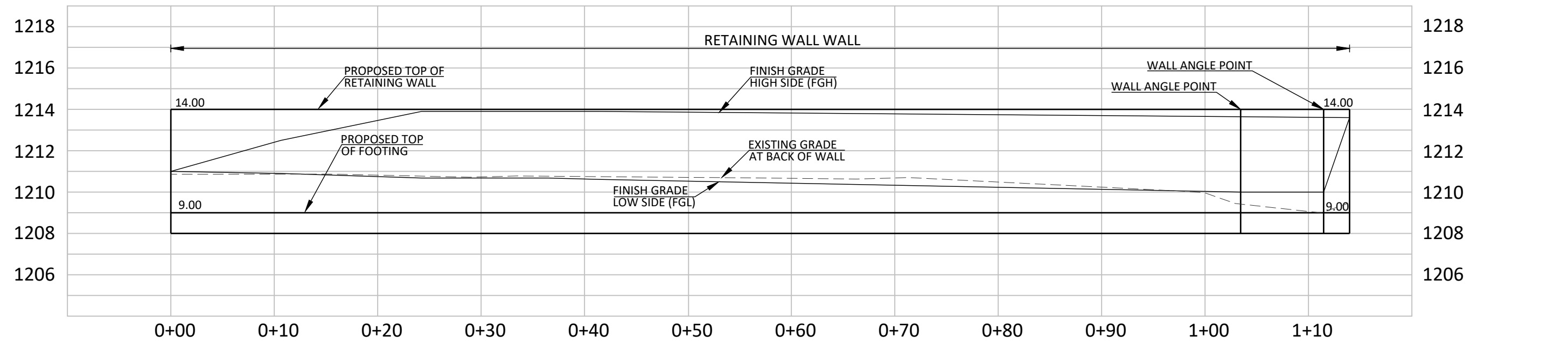
RETAINING WALL "A" PROFILE AT BACK OF WALL

HORZ: 1"=10'  
VERT: 1"=5'



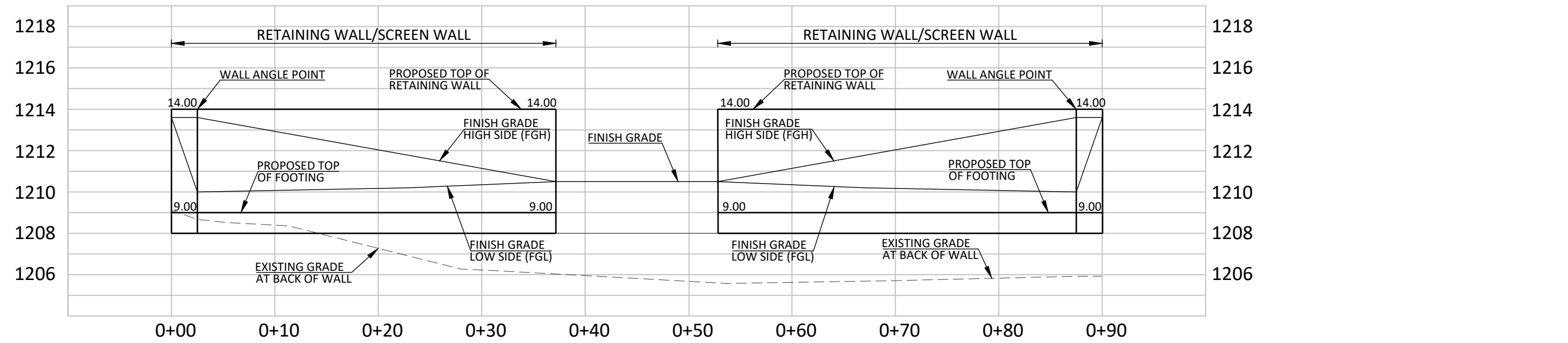
RETAINING WALL "B" PROFILE AT BACK OF WALL

HORZ: 1"=10'  
VERT: 1"=5'



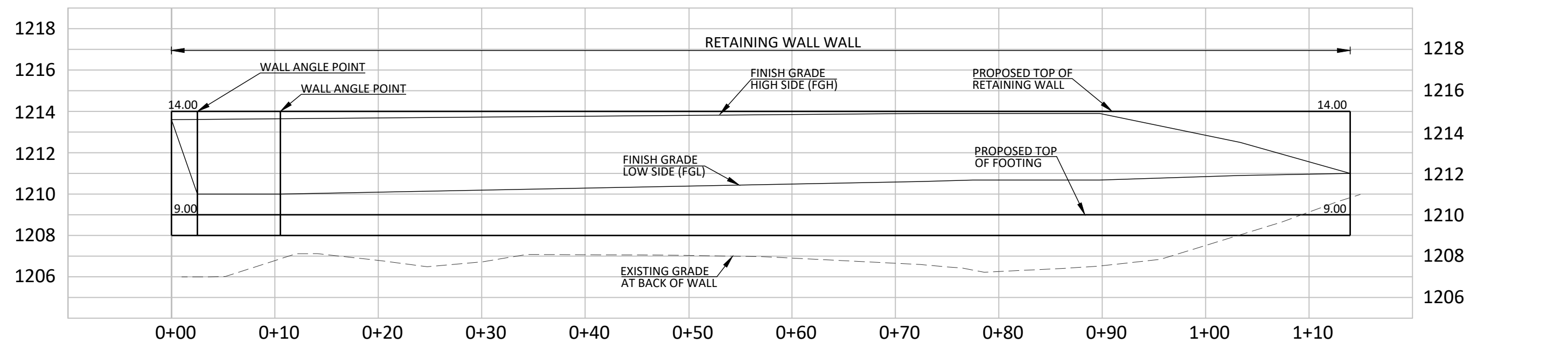
RETAINING WALL "C" PROFILE AT BACK OF WALL

HORZ: 1"=10'  
VERT: 1"=5'



RETAINING WALL "D" PROFILE AT BACK OF WALL

HORZ: 1"=10'  
VERT: 1"=5'



RETAINING WALL "D" PROFILE AT BACK OF WALL

HORZ: 1"=10'  
VERT: 1"=5'



urban culture design  
734 west polk street  
phoenix, arizona 85007  
contact: tiffany halperin  
talk: 602-717-0702  
email: tiffany@urbanculturedesign.com

# SURPRISE WATER CONSERVATION GARDEN

CITY HALL  
SURPRISE, ARIZONA

WATER RESOURCE MANAGEMENT  
contact: Amy Peterson  
email: Amy.Peterson@surpriseaz.gov  
talk: (623) 222-7033

**CYPRESS CIVIL**  
4450 north 12th street, #228  
phoenix, arizona 85014  
p: 623.282.2498  
e: jphunt@cypresscivil.com

CYPRESS PROJECT NO: 19.135

retaining wall profile

<input type="radio"/>	2ND CITY SUBMITTAL
<input type="radio"/>	1ST CITY SUBMITTAL
<input checked="" type="radio"/>	PRELIMINARY PLANS PLANTING AND IRRIGAT.
<input type="radio"/>	CONCEPT DRAWINGS
	MAR. 2ND, 2020
JPH	
JPH	
#	UCD PROJECT NO. 19015

